JAN 3 - 1918
UNIV. OF MICH.

The

British Medical Journal

The Journal of the British Medical Association.

WITH SUPPLEMENT.

No. 3022. SATURDAY, NOVEMBER 30, 1918. **Price 1/-**

Works by J. SIM WALLACE, D.Sc., M.D., L.D.S.

DENTAL DISEASES IN RELATION TO

PUBLIC HEALTH.

"A most masterly exposition . . . . shows that diseases of the teeth are quite easily preventable."—*Lancet.* Price 3s. net.

THE

Prevention of Diseases Common in Childhood.

"No school doctor dare neglect to study this little book."—*School Hygiene.* Price 3s. 6d. net.

BAILLIÈRE, TINDALL & COX,
8, Henrietta Street, Covent Garden, London.

By C. MANSELL MOULLIN,

M.D.Oxon., F.R.C.S., Consulting Surgeon to the London Hospital.

ENLARGEMENT OF THE PROSTATE.

Fourth Edition. Price 6s.

THE BIOLOGY OF TUMOURS,

including the Bradshaw Lectures.

New and Revised Edition. Price 2s. 6d. net.

London: H.K. LEWIS & Co. Ltd., 136, Gower St. W.C.1

SECOND EDITION. In Two Vols. 45/- net.

DEFORMITIES

INCLUDING

DISEASES OF THE BONES AND JOINTS.

A TEXT-BOOK OF ORTHOPÆDIC SURGERY.

By A. H. TUBBY, C.B., C.M.G., M.S.

Illustrated by 70 Plates and over 1,000 Figures, and by Notes of Cases.

2ND EDITION.—"The standard text-book in English on the subject."—*The Lancet.*

1ST EDITION.—"Standard work on the subject in the English language."—*Brit. Med. Jour.*

MACMILLAN & Co., LTD.,
St. Martin's Street, London, W.C.

Pp. viii + 350, With 102 Illustrations.
Price 7s. 6d. net.

DISEASES

OF THE

RECTUM AND ANUS

BY

P. LOCKHART MUMMERY, F.R.C.S.

BAILLIÈRE, TINDALL & COX,
8, Henrietta Street, Covent Garden, W.C. 2.

REGISTERED AS A NEWSPAPER.]

ARCHIVES OF RADIOLOGY AND ELECTROTHERAPY.

The Official Organ of the British Association of Radiology and Physiotherapy.

Monthly, 3s. 0d. net.

Contents of November Number.

LOCALIZATION OF A FOREIGN BODY IN THE EYE. By Major A. HOWARD PIRIE, C.A.M.C.

A NEW FORM OF SCREEN LOCALISER. By Capt. J. A. SHORTEN, M.B., I.M.S.

SIMPLE METHODS OF LOCALISING FOREIGN BODIES: (1) GENERAL. (2) EYE WORK. By Capt. D. B. McGRIGOR, R.A.M.C.

SECOND SERIES OF NOTES ON THE RADIOGRAPHY OF THE GALL BLADDER. By N. MACLEOD, M.D., C.M.Edin.

Notes and Abstracts.

Annual Subscription, payable in advance, 30s.

London:
WILLIAM HEINEMANN (Medical Books) Ltd.,
20, Bedford Street, W.C. 2.

By C. O. HAWTHORNE, M.D.

STUDIES IN CLINICAL MEDICINE

Price 6s. net.

"A valuable miscellany of clinical studies."
—*Edin. Med. Journ.*

"Covers the ground of clinical medicine in an able manner."—*Canada Lancet.*

"Should be in the possession of every general practitioner."—*Prescriber.*

BALE & DANIELSSON, Gt. Titchfield Street, W. 1.

Pp. x. + 233. Price, Cloth, 3s. 6d. net.

LEFTWICH'S AIDS TO RATIONAL THERAPEUTICS.

"To the general practitioner and advanced student this book will prove a boon."—*Medical Press.*

BAILLIÈRE, TINDALL & COX,
8, Henrietta St., Covent Garden, London, W.C .1.

Now Ready. Pp. xi. + 269. With 3 Charts. 5s. net.

ON ALCOHOLISM:

Its Clinical Aspects and Treatment.

BY FRANCIS HARE, M.D.,

Medical Superintendent of the

NORWOOD SANATORIUM,

Beckenham.

"Marked by candour, common sense, and moderation . . . likely to become the standard text-book." *British Medical Journal.*

London: J. & A. CHURCHILL,
7, Great Marlborough Street, W. 1.

[COPYRIGHT.]

OXFORD MEDICAL PUBLICATIONS

READY DECEMBER 5TH.

OPERATIVE TREATMENT OF CHRONIC INTESTINAL STASIS.

By Sir W. ARBUTHNOT LANE, Bart., C.B., Consulting Surgeon to Guy's Hospital, and to the Hospital for Sick Children, Great Ormond Street.

Fourth Edition, Revised and Enlarged.

Large Demy 8vo. 340 pp., with 133 Illustrations. Price, 20s. net.

READY SHORTLY.

LICE AND THEIR MENACE TO MAN.

By Lieut. LL. LLOYD, R.A.M.C.(T.), Chief Entomologist in Northern Rhodesia, with a Chapter on "Trench Fever, by Major W. BYAM, R.A.M.C.

Demy 8vo. Pp. 152, Illustrated. Price, 7s. 6d, net.

HENRY FROWDE AND HODDER & STOUGHTON,
Oxford Press Warehouse, Falcon Sq., London, E.C. 1.

Price 2s. 6d. net (postage 3d.).

DIAGNOSIS AND TREATMENT

IN CASES OF

OTITIS MEDIA

(MASTOID DISEASE).

Being a Paper read before the Hunterian Society, London. Revised and amplified by the addition of numerous Notes and Illustrations explanatory of the indications for the performance of the Author's conservative mastoid operations in order to save the hearing of the discharging ear.

By CHARLES J. HEATH, F.R.C.S.Eng.,
Consulting Aurist Metropolitan Asylums Board, Late Surgeon Throat Hospital, Golden Sq., London.

London: BAILLIÈRE, TINDALL & COX,
8, Henrietta Street, Covent Garden, W.C. 2.

THIRD EDITION. Pp. viii + 264, with 226 Illustrations. Price 10s. 6d. net.

HANDBOOK OF OPERATIVE SURGERY

(Containing the latest War Surgery Work).

By W. I. DE C. WHEELER, B.A., M.D., F.R.C.S.I., Lieut.-Col. R.A.M.C.

With Introduction by
Surgeon-General Sir ALFRED KEOGH, G.C.B.

"Much care has been taken to describe the most modern and approved methods of operative procedure, and due regard has been paid to clear and accurate illustration."—*British Medical Journal.*

"We have no hesitation in recommending it, not only to students, but to qualified practitioners, as the most helpful book of its kind with which we are acquainted."—*Medical Press.*

BAILLIÈRE, TINDALL & COX,
8, Henrietta St., Covent Garden, London, W.C. 2.

[ISSUED WEEKLY

Chloramine-T
Disinfectant Wash
FOR MOUTH, THROAT AND NOSE
(Prophylactic against Influenza)

Containing Chloramine-T compounded with Sodium Chloride and Eucalyptus

THIS preparation in convenient powder form combines the powerful disinfectant properties of Chloramine-T with the tonic and refreshing qualities of an aromatic saline wash, and will be found most efficacious in the prevention and cure of Influenza.

Half a teaspoonful of the powder dissolved in half a tumblerful of warm water should be used freely twice or three times daily as a mouth wash, nasal douche and gargle.

A solution double the above strength may be used with a spray, atomiser or nasal irrigator. The same strength solution will also be found suitable for spraying the atmosphere and floors of rooms or buildings to prevent the spread of contagion.

The solution fulfils all requirements where the ordinary antiseptic douches, gargles or sprays against influenza, etc., are recommended: it has the advantage of being not merely antiseptic but germicidal.

Non-poisonous. ***Non-irritating.*** ***Handy and compact.***

SUPPLIED IN CARTONS 9D. EACH

In bulk for disinfecting rooms, walls, floors, etc., in hospitals, medical institutions, etc. Special rates on application.

□

PREPARED IN THE LABORATORIES OF

BOOTS PURE DRUG COMPANY LTD.

MANUFACTURING CHEMISTS AND MAKERS OF FINE CHEMICALS, **NOTTINGHAM.**

SIR JESSE BOOT, Managing Director.

CHLORAMINE-T DISINFECTANT WASH IS OBTAINABLE FROM ALL BRANCHES OF

BOOTS *THE* CHEMISTS.

SPOLIA OPIMA.

Being the Presidential Address to the Surgical Section, Royal Society of Medicine.

By

Sir JOHN BLAND-SUTTON, F.R.C.S.

On an idle day, in a fit of curiosity, a friend of mine took a Babylonian tablet of baked clay, beset with arrow-headed, or cuneiform, characters, to the British Museum and asked for a translation. The inscription proved to be a contract for the sale of grain, about 2000 B.C. The air of London had a bad effect on the tablet, for it cracked and disclosed another within—a compact tablet with an inscription in Sumerian, the early language of Babylonia. Professor Leonard W. King deciphered this as recording a receipt of grain, the inscription on the case being a shorter version of the deed.

I propose to set before you some examples of characters written by disease on the tissues of men that are as obvious to the eye as cuneiform writing, but more difficult to decipher. The first is a tumour in the shaft of the humerus which was brought before this Section in 1912

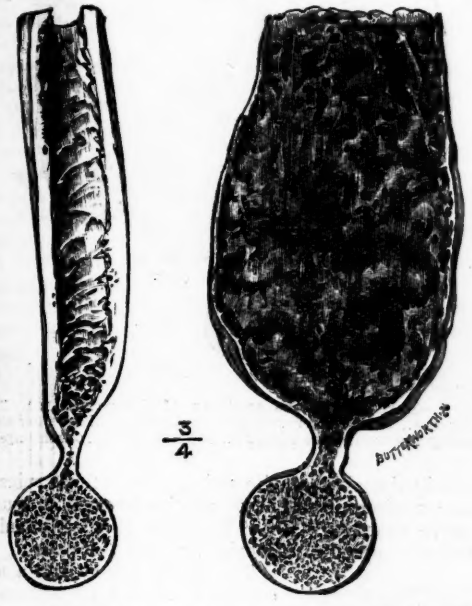


Fig. 1.—Lower portion of a humerus in longitudinal section; it contains a central tumour The figure on the left shows the corresponding section of a normal humerus. (From *Tumours*.)

I am able now to give the complete clinical history of what appears to me to be a remarkable tumour.

A Remarkable Tumour.

General Adrenal Malignancy.

It is part of the duty of the doctor on a fashionable liner to look after the amusement as well as the health of the passengers. Dr. C., aged 45, had been a ship's doctor for many years. One evening, in the Red Sea, he was dancing with a fat woman, and, as so often happens on board ship, drawing-room lancers became kitchen lancers, and whilst swinging round his heavy partner he felt a sudden pain in the right elbow. A year later he noticed a swelling at the lower end of the humerus and a radiograph indicated the presence of a central tumour. On September 23rd, 1912, I excised the lower half of the humerus, for it was occupied with a red and extremely vascular tumour presenting the naked-eye appearances of a myeloma (Fig. 1). The microscopic characters of the tumour, however, were undecipherable, and I contented myself with a provisional label and styled it an endothelioma, as this name seemed to fit in best with its minute structure (Fig. 2). After all, the essential use of a name is to serve as a label. The patient recovered with a useful hand in spite of the removal of such a long piece of the humerus. With the help of an elastic bandage he could fix the forearm to the arm, and this enabled him to write letters and legible prescriptions, see patients, pocket fees, light a pipe, button his clothes, and, among other things, apply midwifery forceps successfully, and thus get a living. Indeed, the hand was more useful than any cunning contrivance made by man. Dr. C. led an active and useful life till 1918, when he was attacked by pains in the lower limbs, which he thought were due to secondary deposits in the spine. I was not satisfied about this and kept him under observation in the hospital. Some improvement followed, and I could find no evidence of recurrence or dissemination. A few days after admission the patient died suddenly.

The *post-mortem* examination revealed an extraordinary state of things. Both adrenals were converted into plum-coloured masses as big as fists (Fig. 3). The lower half of the right kidney was converted into a plum-coloured tumour. The abdominal lymph nodes were as big as ripe grapes and dull red. The heart was much larger than normal and the walls of the left ventricle were double the normal thickness. A nodule, in shape and size like a nut, projected from the interventricular wall among the cords of the mitral valve. The spinal cord was free from pressure and the spine from deposits. The lungs were free from nodules. The microscopic structure of the visceral tumours has been carefully investigated. The tumours in the adrenals and kidney exhibit the same peculiar structure as that in the humerus. Each consists of an enormous number of thin-walled blood vessels, and resembles a cavernous naevus. The nodule from the heart

Fig. 2.—Microscopic features of the central tumour of the humerus represented in Fig. 1. (From *Tumours*.)

throws much light on the nature of the case; for it has the same structure as the zona fasciculata of the normal adrenal, and is, in fact, a hypernephroma.

With the complete history of the case before us I venture to think that it may be read in this way: the primary tumour arose in the adrenal, and the central tumour in the humerus was secondary, the remarkable feature in the case was its chronicity. It is worth while pointing out that the pathological features presented by it are similar to those that characterize the rare condition known as general thyroid malignancy in which a moderate, and apparently benign, enlargement of the thyroid gland is associated with multiple tumours, especially in bones. The structure of such deposits is indistinguishable from that of normal thyroid tissue. I submit that it is a fair estimate of the case now presented to regard it as an example of general adrenal malignancy.

Perhaps the publication of this case may induce members to bring before the Section like or similar specimens. Moreover, I do not know of any published case in which the lower half of the humerus has been successfully excised for a central tumour.

A Rare Angioma.

A shipping clerk, aged 25, came under my care at the Middlesex Hospital, in 1917, for a peculiar abnormality of the blood vessels of the right upper limb. The arteries and the superficial veins were enormously enlarged. The veins pulsated like arteries and a thrill was perceptible in

all the veins. On auscultation a loud buzzing could be heard in these swollen vessels. The palm was occupied by a large blue compressible swelling with all the

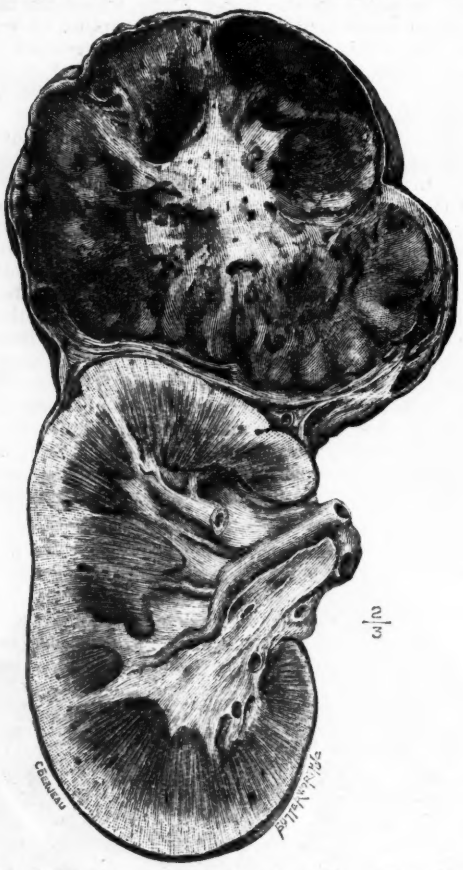


FIG. 3.—Right adrenal and kidney in section. The adrenal is converted into a tumour.

characters of a cavernous angioma; it bulged through the first interosseous space and appeared on the back of the hand. The heart and big vessels of the thorax appeared to be normal.

The man said the swelling had existed as long as he could remember, but the blood vessels had of late increased in size. As he could use his hand and fingers freely I did not feel disposed to interfere, but warned him to return on the appearance of any serious change.

Six months later I found the man in my ward in a pitiable condition, ill and suffering. The fourth and fifth fingers of the right hand were gangrenous and bleeding. After careful consideration and consultation with my colleagues, I reluctantly amputated the limb just below the insertion of the deltoid muscle.

Immediately after removal the vessels were thoroughly irrigated with warm saline solution and filled with wax, coloured with vermilion, and subsequently dissected (Fig. 4).

The first surprise came with the injection, for the wax injected into the brachial artery promptly returned by the veins; both sets of vessels were filled with injection mass from the brachial artery. An examination of the dissected specimen explains this.

The brachial artery, more than twice the normal size, divides at the bend of the elbow into an ulnar and radial branch; each is as big as the common femoral artery.

FIG. 5.—Portion of a stomach showing an ulcer, from a woman aged 22; the ulcer perforated.

The ulnar, the larger of the two, runs its normal course and forms a superficial palmar arch consisting of a big moniliform artery sending branches to feed a cavernous

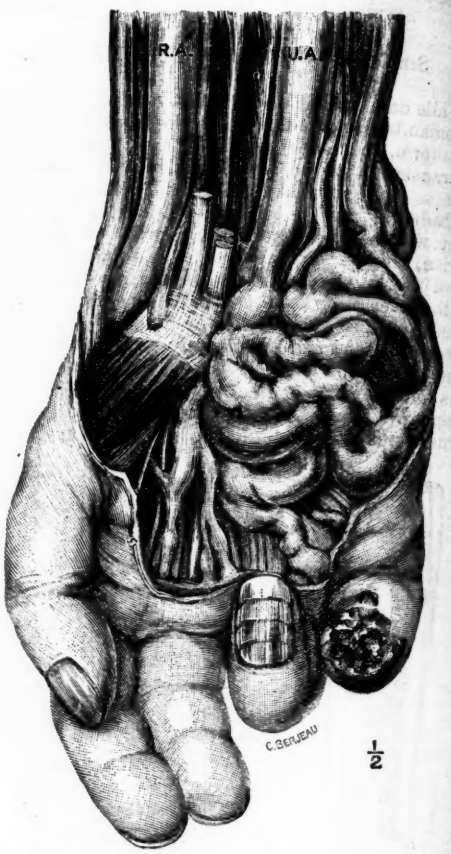


FIG. 4.—Large cavernous angioma of the palm. R.A., Radial artery; U.A., ulnar artery. The effect of impaired nutrition is shown by the transverse ridges on the nail of the fourth finger.

angioma in the skin of the palm. Superficial veins arose from the angioma and passed up the forearm as usual, but they were unusually big. Through this communication much of the injection material reached the veins.

The radial artery ran a normal course, but formed a tortuous rete mainly in the first interosseous space. Several large veins arose in this plexus. The interosseous arteries in the forearm are larger than usual, and the superficial palmar arch does not join the radial in the first interosseous space. The venae comites of the radial, ulnar, and brachial arteries are not enlarged. All the vessels concerned in supplying and discharging blood from the angioma had walls of the same thickness. During life these arteries and veins pulsated synchronously. They buzzed or purred with the same note and thrilled equally. The big angioma in the palm exercised the same effect on them as a varicose aneurysm. The blood during life was of the same colour in the arteries as in the veins; not so bright as arterial blood, nor so blue as is usual in the superficial veins of the forearm. The veins and arteries are alike in structure; there is no sharp distinction between the coats, and elastic tissue is deficient in quantity.

A similar specimen in the Museum of the Charing Cross Hospital was described by R. Barwell in 1887; as he could find no term in textbooks to fit the abnormal condition of

the blood vessels, he invented one—*Macro-angiosis*. The abnormal condition of the blood vessels in this limb offers a suggestive theme for an imaginative mind.

PATHOLOGY FOLLOWS THE SCALPEL.

During the last forty years surgeons have been too busy developing the possibilities of abdominal surgery to find time for inquiring into the remote consequences of some of their acts. It is well to remember that occasionally an operation which promised much leaves the patient in an unhappy condition. This is occasionally true of operations on the stomach. Gastric surgery made little headway until Wölfler, in Billroth's Klinik at the K.K. allgemeines Krankenhaus, Vienna, in 1881, introduced gastro-enterostomy. As happens to almost every important advance in operative methods there followed a groping stage, then a period of extreme specialization when a few clever surgeons acquired a successful technique and vulgarized short-circuiting. Such efforts have made us better acquainted with the gross maladies of the stomach than all the efforts of morbid anatomists during the preceding century. *Pathology follows the scalpel.*

Most of us admire men who have the acumen to recognize in familiar plants and animals specific differences which their predecessors failed to detect. This is also true of pathological conditions. It is difficult to believe that a hundred years ago gastric ulcer was not distinguished from cancer of the stomach. Trousseau, in a clinical lecture published about 1860, said: "To Cruveilhier unquestionably belongs the merit of having first described the simple chronic ulcer of the stomach as a disease special in its nature, and quite distinct from cancer of the stomach, with which till then it had been confounded." In 1830 Cruveilhier described the condition, and five years later published some excellent illustrations of the lesion in his *Anatomie Pathologique*.

John Hunter recognized chronic ulcer of the stomach at least forty years before Cruveilhier's observation. The Museum of the Royal College of Surgeons of England contains an excellent example (Fig. 5). The specimen is worth examination. In common with all Hunterian specimens it was most carefully selected, excellently mounted, and remains in good condition although it has been in spirit 150 years.

Matthew Baillie published, in 1799, some good illustrations of chronic gastric ulcers. Among the figures in his *Morbid Anatomy* there is one representing an ulcer just beyond the pylorus; it has destroyed a part of all the coats of the duodenum. This is the earliest record of a duodenal ulcer known to me.

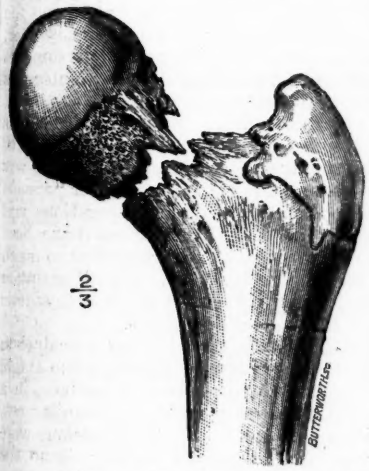


FIG. 7.—Intracapsular fracture of the neck of the femur. (Museum, Middlesex Hospital.)

BILOCULAR STOMACHS.

For many years bilocular stomachs were objects of interest in the dead-house and in the museum. Anatomists regarded a double stomach as an example of atavism—an attempted return to the multilocular stomach of ruminants. With the dawn of gastric surgery men recognized that double stomachs were common, and produced by disease. Morphology has no place in it. We all believe that bilocular human stomachs are due to the slow contraction of the gastric walls in the immediate vicinity of a chronic ulcer, but we are not unanimous as to the best method of dealing with it surgically.

Many examples under my care have been treated by joining a loop of jejunum to the proximal compartment of the double stomach. In three instances I have met with a stomach divided by a tubular isthmus so narrow that the desire to excise the isthmus and join the opposite halves of the stomach was irresistible. The narrowness of the isthmus is shown in Fig. 6.

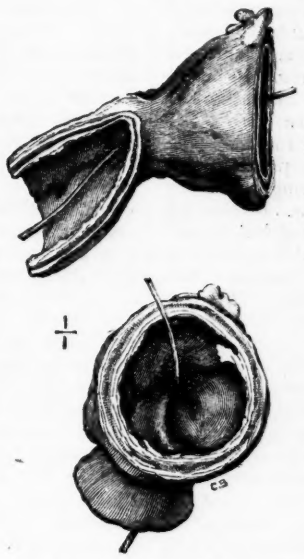


FIG. 6.—The isthmus of a double stomach. Natural size.

The immediate results of the operation in each instance were excellent. The patients were women; they were able to take food freely and painlessly, and quickly increased in weight. Within a year their troubles returned, with all the symptoms of a contracted pylorus. In each instance I reopened the abdomen and found the stomach so contracted at the site of the junction that gastro-jejunostomy was necessary and successful. It seems as if the contraction at the site of the ulcer which originally divided the stomach continued after the excision of the isthmus. Now I perform gastro-jejunostomy as a routine operation for bilocular stomach. This is a matter which could be cleared up in a society like this; if surgeons would be willing to relate their experience and if possible exhibit specimens of bilocular stomachs that have been the subjects of operations, we could frame some rules to guide our successors.

PATHOLOGICAL SPECIMENS AS RECORDS.

The pathological museum is a valuable adjunct to the wards and indispensable to teachers of surgery. When I rearranged the specimens in the museum of the Middlesex Hospital in 1883 I found the upper half of a femur with an intracapsular fracture of its neck. It clearly belonged to an individual of about fifteen, for the epiphyses are present but ununited. Simple intracapsular fracture of the neck of the femur in boys or girls is, I think, an extremely rare accident. A boy aged 12 was playing a rough game in the school yard with his school-mates when he felt acute pain in the right hip. A few days later he was admitted into my ward at the Middlesex Hospital, and an *x*-ray examination showed clearly an intracapsular fracture of the neck of the femur. The boy made a good recovery, and walks with a limp, which is disappearing under massage and judicious exercise. It is the only case of the kind that I have seen during life, and if the accident is not uncommon, the specimen represented in Figs. 7 and 8 may be certainly accounted rare. Senile femurs with broken necks abound in pathological museums, but I doubt if five examples obtained from boys or girls exist in all the museums of the United Kingdom.

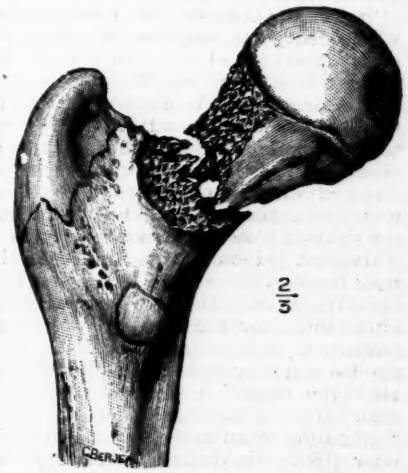


FIG. 8.—Posterior view of the same bone.

SURGERY IN THE EIGHTEENTH CENTURY.

October 16th should be Lemuria for surgeons; they need not throw black beans behind them or avoid looking back.

Indeed, it is useful to look back; on this day, 1793, John Hunter died. He recognized the value of meetings arranged for the discussion of matters concerned with the progress of surgery. In 1783, when the lease of his house in Jermyn Street expired, he moved to Leicester Fields and built a museum between the house in Leicester Fields and the house in Castle Street. There were lecture-rooms, work-rooms, a dissecting-room, and a press-room, where his books were printed and published.

In 1785, a society known as the Lyceum Medicum was established under the patronage of John Hunter and Dr. Fordyce. The meetings were held at Hunter's house. Medical cases were discussed by the members, and the more instructive of the additions to the museum were exhibited at the meetings. Hunter slowly mounted the professional ladder, and in the last ten years of his life he had a big and lucrative practice. Passion for scientific work delays a young surgeon when making a practice, but it is a sure rock on which to build, and though practice may come slowly, it comes surely, and persists. Pathology was for Hunter the physiology of disease, but his pathology was mainly morbid anatomy based on the naked-eye study of the dead body. He studied critically the principles underlying the healing of wounds. This is necessary for surgeons. *If wounds did not heal the art of surgery could not flourish.*

It is difficult to realize, when we bear in mind the ignorance that persisted concerning the causes of disease in the eighteenth century, that surgery could hold its own. The surgeon's time was largely occupied in dealing with injuries, especially cuts, wounds, fractures, and their consequences. Head injuries received much attention. Hernia, a common and serious affection, was carefully studied, and especially the anatomy of hernial regions.

This is true of hydrocele. Astley Cooper, when attending Hunter's lectures, found the town divided in opinion on the best mode of performing operations for its relief. "So great was the difference of opinion among students from different hospitals that it was quite ridiculous to observe their warmth on the subject." *The spirit of the profession on vexed questions remains unchanged.*

The arrest of bleeding takes a foremost place in the work of surgeons. Although Paré acquired in the sixteenth century the simple notion of tying the cut end of an artery to stop bleeding, surgeons are still exercising their minds to find a good ligature material.

It was unreliable ligatures that caused so much difficulty in the operative treatment of popliteal aneurysm. In the eighteenth century the direct operative treatment of popliteal aneurysm was unsuccessful, "a circumstance which led some surgeons of great eminence to prefer amputation of the limb in all cases." Hunter erroneously believed that failure was due to disease of the arterial wall in the vicinity of the aneurysm. He made some experiments on the carotid and on the femoral artery of a dog which led him to believe that the common operation failed because the artery was tied near the sac, and the diseased condition of the arterial wall prevented the proper occlusion of the lumen of the vessel; on the separation of the ligature bleeding ensued and often killed the patient. This idea led him to tie the femoral at some distance from the sac, where the vessel was healthy. In December, 1785, Hunter tied the femoral artery near the middle of the thigh for the cure of a popliteal aneurysm. The patient, a coachman, recovered. Four ligatures were applied and they were gradually discharged some months after the operation (*London Medical Journal*, 1786, vii, 391). His contemporaries did not get good results from the ligature of an artery remote from the sac. A century later (1886) Sir William Savory reported on the popliteal aneurysms preserved in the London museums and came to the conclusion that ligature of the femoral artery is not an ideal method of dealing with popliteal aneurysm. He recommended a reconsideration of the question and a return to the pre-Hunterian operation. Lister solved the riddle. The cause of failure was sepsis. As soon as means were devised for making ligature material sterile and reliable, surgeons returned to the ancient method. Some boldly dissected out the sac. In 1888 Matas began to open the sacs of aneurysms and restore the canals of dilated arteries by infolding their walls. He inaugurated a new phase in the treatment of injured and disordered blood vessels.

Since Hunter's death much knowledge of the diseases of arteries has been acquired; he had no idea of the baneful effects of syphilis on their walls. Pathologists slowly realized that in this extraordinary disease the inner and middle coats of arteries soften, and yielding to the pressure of the blood form dilatations—aneurysms. Veterinarians have long known that aneurysms of the anterior mesenteric artery of the horse and the ass are due to injuries inflicted on the wall of this vessel by the palisade worm, *Strongylus armatus*. The sexless larvae of this worm enter the blood stream and damage the walls of the artery by anchoring on the internal coat by their teeth. Verminous aneurysms are well known as well as their relation to embolic colic in horses. Later it was discovered that emboli associated with septic endocarditis swarm with streptococci, and such clots, arrested in arteries, induce local infection of the arterial wall inducing the formation of aneurysms. Such are known as embolic aneurysms. Then came Schaudinn's brilliant discovery of the cause of syphilis, a microscopic parasite, the *Spirochaeta pallida*, a trypanosome. The inner and middle coats of the arteries are its favourite haunts. Then truly the eyes of surgeons were opened and the relation of syphilis to aneurysms was revealed.

Tumours.

The Hunterian specimens mounted to illustrate diseased action in the museum show that the founder's ideas of many pathological processes were very crude. Without histology the surgeon's knowledge of the nature of tumours was not much above that of the horse doctor. Indeed, the herdsman used similar names. Doctors, farriers, and shepherds talk of corns, warts, blains, wens, and blemishes. Such names as polypi, tubercles, caruncles, and hydatids confuse rather than instruct. The slaughter-house furnished Hunter with melanotic tumours in the udders of cows, the knacker's yard supplied pigmented tumours from the tails of grey horses; from travelling menageries he obtained tumours in wild animals; the graveyard yielded calcified fibroids and tumours of bones. Surgeons classified tumours by colour, consistence, and clinical characters. With so much ignorance of the pathology of tumours, surgery was not helpful in dealing with them. To-day we remove them with some measure of success, but the cause of cancer remains undetected, and our methods of treatment are more or less empirical.

Operative Surgery in the Eighteenth Century.

Operations in Hunter's time consisted of bleeding, opening abscesses, removing pieces of dead bone, tapping for dropsy, releasing strangulated hernias, trephining the skull for cranial injury, cutting for stone in the bladder, castration, Caesarean section, removing pendulous tumours and cancerous breasts, and amputating limbs. Hunter was also especially interested in transplanting teeth.

The mortality of operations from post-operative sepsis was enormous. As late as the middle of the nineteenth century the operating theatre in one London hospital was over the *post-mortem* room, and seams in the floor "opened wide." The suffering of patients during operations was indescribable. Surgeons in those days must have been men of rare courage to practise an art requiring so much self-control. Some were very dextrous. The description of an amputation performed by Liston in pre-anaesthetic days gives a good idea of surgical dexterity:

"He took a formidable knife, and, having a scalpel in readiness, thrust the knife pointwise through the thigh, and, cutting downwards and towards the surface, in a moment completed the flap. A second and similar cut, below the femur, made another flap, the two incisions were united at the sides, the scalpel passed rapidly round the bone, the muscles *en masse* drawn up, the saw taken . . . and the limb fell to the ground. The rapidity was truly miraculous . . . the limb was on and off in a wonderfully short space of time; and this operation demonstrated the manual dexterity which practice will enable a man to acquire, whether it be in amputating a limb or picking a pocket."

The post-operative sufferings of patients were often dreadful, and the risks great. There is a specimen in the Middlesex Hospital Museum which I often look at as exemplifying these risks. It is a portion of thigh bone with an ivory peg in it. Its history is very instructive. A middle-aged man, the captain of a whaler, broke his thigh in the South Seas. The sailors put the leg in splints.

Some months afterwards he was admitted into King's College Hospital with the fracture ununited. Sir William Fergusson rubbed the fragments together; subsequently he scarified them subcutaneously, and later inserted an ivory peg between them. No union followed, and Sir William amputated the limb. Secondary bleeding occurred after the flaps had partially healed, for which Mr. J. W. Hulke tied the superficial femoral artery. An aneurysm formed at the seat of ligature. The patient died a few months later. The specimen is not only instructive, but it is of historical interest.

Surgeons vainly imagined in the dawn of the twentieth century that they had seen the last of post-operative sepsis. Sir Charles Bell's water-colour sketches, recently exhibited in the museum, are vivid pictures of septic fungating gunshot wounds incurred at Waterloo. The present war has given surgeons an opportunity of testing their accuracy and witnessing similar horrors.

The large collection of pathological specimens illustrating war wounds, now lodged at the Royal College of Surgeons of England, should be utilized. If these preparations were systematically studied much that is useful could be co-ordinated, and this Section should be the medium for collecting some of the "choicest spoils" obtained by surgeons in London.

A REPORT ON TEMPORARY PEGS FOR AMPUTATION OF THE LOWER LIMB.

BY

W. A. CHAPPLE, M.D., M.P., Major R.A.M.C.,

SURGICAL SPECIALIST, PAVILION GENERAL HOSPITAL, BRIGHTON; MEDICAL ADVISER TO THE PROVISIONAL LIMBS DEPARTMENT OF THE JOINT WAR COMMITTEE, BRITISH RED CROSS AND ORDER OF ST. JOHN.

It has been agreed by all authorities interested in the subject that during the interval elapsing between the healing of an amputation stump of the lower limb (or a near approach to healing) and the provision of a permanent artificial limb when the stump has shrunk to its permanent size, a man should wear some kind of temporary peg. The period of more or less rapid shrinking and reshaping of the stump follows healing. Though the stump may appear to be following a normal course, however, the scar may become tender, or break down and ulcerate, or bulbous nerves may form, or spurs may develop; devitalized bone may, instead of recovering, necrose, or the atrophy and shrinking of the soft tissues may be so complete as to bring to the surface bony spurs or prominences that make the stump rebellious to a mechanical appliance.

A Model Stump.

An ideal stump is one which most nearly conforms to nature's stump, the normal heel, and is capable of bearing without discomfort the whole weight of the body in normal locomotion. The characteristics of the normal heel are that it is dome-shaped, is covered with skin capable of hardening with use, is free from scar, and has a subcutaneous pad of fat honeycombed with connective tissue, which lies upon the periosteum covering the dome-shaped extremity of bone. Every surgeon aims at reproducing these conditions in the end of an amputation stump. He may fail, but the more nearly he approaches the more successful will be the result, and the more grateful his patient.

A Model Bucket.

A well fitting boot on a normal foot suggests the characteristics of an ideal bucket. A boot should fit accurately the whole contour of the foot. It should be sufficiently tight to bear equally on every surface of contact, and should be sufficiently smooth on all its inner surfaces to permit of the slight amount of necessary friction in walking to take place between the sock and those smooth surfaces. If the inside of the boot is rough, the sock tends to cling to it, and the friction in movement is apt to take place between the sock and the skin. These characteristics are even more important when we have to deal with skin surfaces and bony prominences which are not meant by nature to submit to this pressure and friction. An ideal bucket will therefore have a smooth and almost shiny inside surface, with a diaphragm so placed as to carry a maximum portion of the weight of the body on the end of the stump, and a rim so contrived and shaped as to carry the remaining portion of the body weight by coaptation to the appropriate bony surfaces, near the adjacent joint.

Pegs.

Various kinds of temporary pegs have been designed and made from time to time, with some attempt to conform to those conditions. A peg can be used even before the stump is quite healed. It rapidly shrinks and shapes the stump to its permanent size and form. It trains at the soonest possible moment the muscles that are to move the stump in locomotion. It tends to prevent stiffness from disuse of the adjacent joint. It picks out the weak spot in scar or bone or nerve that is destined to give way later to the pressure of the permanent limb; and it does this early and without waste of time, and with the scrapping of a limb that cost under 10s. instead of one that costs £15 or of a bucket that costs £4. It avoids the use of crutches, with their danger of crutch paralysis; the displacement of the centre of gravity of the body, and the unequal distribution of pressure on the joints of the sound limb. It frees the hands from the immobilization that crutches entail, and permits the man to get on with work or training. It provides a light domestic "slipper" after the man has his permanent limb, with which he can rest at home or in his garden, by throwing off his seven or eight pound limb and putting on one of one or two pounds. It supplies him with a spare for use if his permanent limb breaks down or requires to be repaired.

Various Designs.

It is admitted that the ideal peg has not yet been found, and a number of manufacturing dépôts have been busily engaged in making and improving pegs for the past two years. The following is a brief description of the most popular. They may be divided into two classes: (1) Therapeutic pegs, and (2) Auxiliary pegs. The therapeutic peg is one which shrinks and shapes the stump, but has no durability for permanent use. The auxiliary peg is one which is serviceable to the wearer after the limb has approximated its permanent shape and size. It has the characteristics of permanence and may be used to fill the interval between more or less complete shrinking and the time when a permanent limb can be supplied. If well made and well fitting and of durable material there is no reason why it should not act permanently as a spare, a rest, and a "slipper."

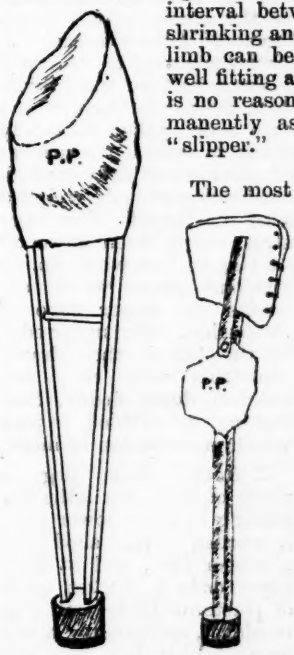


Fig. 1.—Plaster pylons. PP, Plaster-of-Paris bandages.

Plaster Pylon.

The most generally used peg of the therapeutic class is the plaster pylon. It is made of two wooden struts morticed into a turned wooden ferrule, to the bottom of which is fixed a rubber heel. These uprights are of unequal length for a thigh stump and of equal length for a leg stump. After the skin of the stump is smeared with vaseline, the upper ends of the struts are embraced in plaster-of-Paris bandages, which are wound round the stump. When a sufficient number of turns have been made to give the bucket stability, it is left for a few moments to harden, then slipped off and reinforced with more plaster bandages, the edges being turned over and shaped to conform to the bony prominences on which the body weight is carried. The inside is made perfectly smooth with plaster-of-Paris cream. It may be naturally or artificially dried, but it is usually hard within forty-eight hours from the time it is made and is ready for use. A hook is advisable in the outer strut for a thigh stump, and also a wooden spreader between the struts in order

that braces may be attached and used to support the weight of the peg. Some line the bucket with felt. This seems unnecessary, because it violates the principle already mentioned. The lining tends to hang to the stump sock and the friction in locomotion tends to take place between the sock and the skin. The lining also in many cases tends to ruck and get lumpy. The use of one or more socks is sufficient to give the upholstering necessary. The material costs about 5s.

Auxiliary Pegs.

The auxiliary pegs are of a more permanent character. Plaster-of-Paris soon crumbles, and the peg is valueless in from six weeks to three months from the time it is made, but being cheap and readily applied it can always be remade by chipping off the plaster from the struts and rebandaging with plaster-of-Paris bandages. Moreover, auxiliary pegs can be made to fulfil the function of a therapeutic peg. These pegs are so simple and cheap that if shrinkage does take place either the bucket of the auxiliary or the whole peg can be remade. The most popular of the auxiliary pegs are the following, described in their alphabetical order:

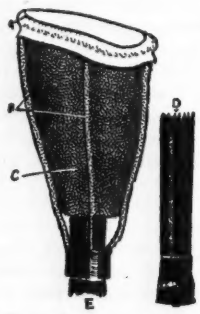


FIG. 2.—The Alder Hey peg. A, Wire ring and felt covering; B, wire struts; C, papier-mâché; D, wooden stem; E, thigh peg.

1. *Alder Hey.*—The Alder Hey peg consists of a papier-mâché bucket and a wooden stem. The plastic mixture consists of used tramway tickets boiled for six hours. The pulp is then wrung dry in a coarse cloth and mixed with glue and common whitening added gradually till a pultaceous mass is obtained. The mass can be kept moist and workable for three days if wrapped in a damp cloth. A plaster cast of the stump is first taken, and to this a layer of felt is applied and firmly stitched. The felt is then painted over with glue, and before the glue sets the plastic mass is applied to the surface of the felt with a trowel to the thickness of one-eighth of an inch till a homogeneous surface is made over the whole cast. When the papier-mâché is dry it is removed from the cast. A diaphragm is made in this bucket by gluing to its lower edge a circular piece of wood about half an inch thick. Four iron stays welded below to a tube, 1 in. deep, of one and a half inch gas tubing are now applied vertically round the bucket in such a way as to embrace it firmly; they are fixed by strips of glued canvas vertically applied, and afterwards covered by gauze bandages firmly wrapped around the bucket and glued. The upper ends of these struts having been bitten off are bent over a ring of iron wire (No. 12 standard gauge) which encircles the upper edge of the bucket. The upper edge of the felt is then drawn over this wire ring and stitched down firmly, thus making a cushion upon which pressure can be made.

FIG. 3.—The Bath peg.

2. *Bath.*—This peg is made of four thin laths embracing at their lower ends a wooden ferrule shod with a rubber heel, and at their upper ends a bucket made of plaster-of-Paris and glue bandages, surrounding a felt lining which has been cut and stitched to fit the stump, on which the moulding is done. The material costs 5s. for above the knee or 15s. for below knee.

3. *Brighton.*—The Brighton peg consists of a cone of black fibre board. The fibre is riveted in such a way as to allow the upper end of the cone to embrace a bucket made of leather or of leather-board. For below the knee a plaster cast of the stump is first taken. Bony prominences, such as the shin or the tuberosity of the tibia or the head of the fibula, are exaggerated on the plaster cast by tacking on little pieces of trimmed leather in order that the subsequent leather bucket may have concavities

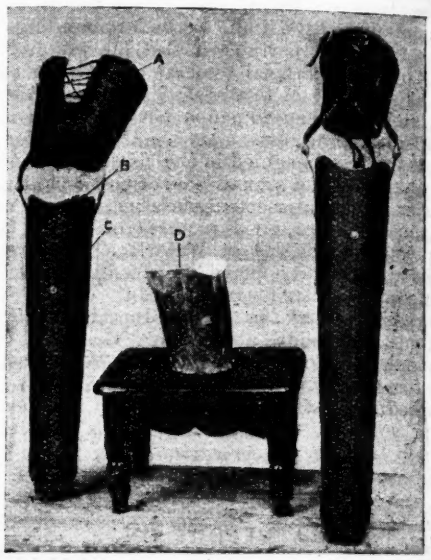


FIG. 4.—The Brighton peg. A, Fibre corset; B, edge of bucket; C, rivet fixing bucket; D, leather-board bucket.

similarly exaggerated, and thereby prevent too forcible a contact between the bony prominences and the bucket in walking. An appropriate size of leather or of leather-board is soaked in water till it is quite limp. It is then stitched over or overlapped over the plaster-of-Paris cast, and hammered into all concavities, bound temporarily with firm bandages and then allowed to dry hard. If leather is used, the edges may be stitched down the back of the cast corresponding to the back of the leg; or if leather-board, the edges may overlap and be riveted when dry and then shaved smooth. This bucket may be reinforced with glue bandages or plaster-of-Paris bandages, or, when subsequently fixed into the upper end of a fibre cone and riveted there, the interstices may be filled up with papier-mâché. The fibre cone is then made to the correct length and its lower edge screwed round a wooden ferrule. Two hinges corresponding to the knee-joint and with their upper arms riveted to a corset to embrace the thigh, are as a rule necessary to keep the cone firmly applied to the stump when walking. If the stump shrinks this bucket can be removed, reshaped on a new cast, and then reinserted in the cone. The material costs 5s. 6d. with leather bucket. (Leather buckets alone cost about 2s. each, leather-board 3½d.)

FIG. 5.—The Brighton peg. P.C., Plaster cast; L.B., leather bucket.

4. *Chelsea.*—At Mulberry Walk, Chelsea, a fibre cone is made, the overlapping edges being firmly riveted. The bucket and upper edges are upholstered and a vertical split is made from the upper edge to about three inches or four inches. The vertical edges thus made are strengthened and laced. Several eyelet-holes are also made in the trunk of the cone at a level corresponding to about one inch from the end of the stump. Laces are threaded through these holes and are under the control of the patient; he may loosen or tighten them according to the amount of pressure he can bear on the end of his stump. A pad of rubber sponge or other material

FIG. 6.—The Chelsea peg, for amputation below the knee.

is laid upon the diaphragm made by these laces, which can be altered or replaced to meet the comfort of the patient. There is great merit in this device, the patient himself training the end of his stump to bear its full share of the weight under his own sensation and control. Hinges for the knee are sometimes applied. The vertical split weakens the bucket, but it is said to give comfort. The material costs 9s. 6d.

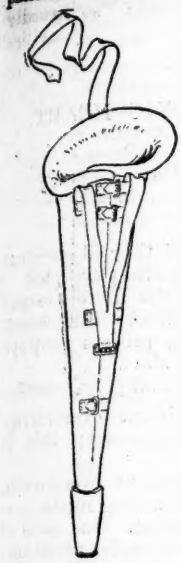


FIG. 7.—The Eaton Gate peg.

5. *Eaton Gate.*—This peg is made of fibre and is cone-shaped. Its overlapping edges are not riveted, but bound together by a series of broad straps and buckles, while the upper edges are upholstered and then covered with a movable chamois leather covering, which can be changed. In this peg an attempt is made to serve the double purpose of the therapeutic and the auxiliary pegs; it can be used before shrinking has taken place, and gradually tightened as the shrinking progresses. Stability and permanence are to some extent sacrificed in this attempt. The material costs about 12s. 6d.

6. *Erskine House.*—This peg consists of a bucket made up of vertical laths, to the lower end of which a wooden diaphragm perforated for a wooden stem is attached; to the upper end an elliptical wooden ring is fixed. Inside these laths is a compressible bucket attached to the lower edge of the ring and embraced by a strap and buckle. These elliptical rings are made in a special manufactory and are supplied in eight sizes. The adjustable bucket inside the laths is made of a single piece of three-ply wood one-eighth of an inch thick, and its overlapping edges are free and yield to the pressure of the strap and the buckle, so that as the limb shrinks it can be altered by a tightening of the strap. The wooden stem passes through the hole in the wooden diaphragm and is adjustable as to length. It is firmly fixed by screws when the height of the patient is ascertained. The material costs about 15s.

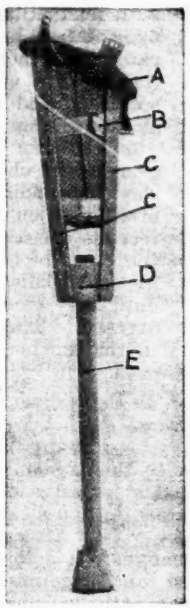


FIG. 8.—The Erskine House peg. A, Wooden ring; B, strap round compressible bucket: C, C, laths; D, diaphragm; E, wooden stem.

FIG. 9.—The Kensington peg.

7. The *Kensington* peg is a fibre cone like that already described. The rim along the inner side is slightly everted, when moist, with a hot tool, and then padded. The bucket, which is simply the top of the cone, is upholstered in such a way as to accurately fit the stump. A movable and washable sock covers the rim and lines the bucket. In the case of a short thigh stump a pelvic band with a hip hinge is attached. This gives better control of the peg by the stump. There is no vertical split in the bucket, and the overlapping edges are riveted in their whole length, making a perfect cone in length and a perfect circle in cross section. This gives stability and endurance. A new peg is made if shrinking takes place. The cost of materials is 8s. 6d.

It is not claimed for any of these pegs that it is ideal. Workers realize that the perfect peg has not yet been found, and all are attempting new designs. It is hoped that all the dépôts will use their best endeavour for the provision of an auxiliary limb which will so fulfil the every need of a limbless man that the provision of a permanent limb may be postponed for a longer period than has hitherto been the rule, in order to avert the great cost of refittings following premature manufacture, and the consequent disappointment of the man.

SOME REFLECTIONS ON CARDIAC CONDITIONS IN SOLDIERS.

BY

R. O. MOON, M.D., F.R.C.P.,

PHYSICIAN TO THE HOSPITAL FOR DISEASES OF THE HEART.

THE belief of Hippocrates that the heart was not affected by disease, which idea persisted well into the seventeenth century, stands in strange contrast with our present-day experiences of the numerous ramifications of cardiac specialism. The war would seem to have made affections of the heart bulk more largely in the eyes of the profession than ever before.

In any large military hospital at the base on any front there is always in the medical wards a fair proportion of so-called cardiac cases; then again, in the examination of recruits, the invaliding of soldiers out of the army or their recategorization, the view taken of the cardiac condition is frequently of primary importance. In a military hospital the number of cases with definite organic disease of the heart is, as might be expected, comparatively small, for such would hardly have passed through the various meshes which encompass the prospective recruit prior to his admission into the army. The large majority of these cardiac cases have gone sick with a variety of symptoms, such as shortness of breath on the march, faint feelings or a general sensation of exhaustion, pointing certainly *prima facie* to some derangement of the circulatory system and often classified under the rather unsatisfactory title of "Disorderly Action of the Heart." As in other departments of medicine, or indeed of life in general, war would seem to have revealed aspects of heart affections which had been but imperfectly apprehended before.

On the one hand war has shown the strength, on the other hand the weakness, of the heart. Many of us must have encountered cases with an organic valvular lesion which had yet been able to carry on satisfactorily for a considerable length of time, and had finally gone sick with something having no obvious connexion with the heart condition. No one can fail to be astonished at the amount of hard work which can be performed by a man with a serious cardiac lesion who has either escaped the vigilance of the recruit examiner or fallen in with an unduly indulgent one. Thus, I well remember a case of mitral stenosis in a man aged 42, whose lesion was clearly due to an attack of rheumatic fever contracted some twenty years previously, but who had been driving a motor in the A.S.C., first in France and then in Salonica, since 1914, and had not suffered from any cardiac symptoms till a month prior to his admission into hospital with malaria in July, 1917. Similarly, I came across a young Canadian with obvious aortic regurgitation, dating from an attack of chorea at the age of 17, who had served in France for eight months in the infantry and about the same period in the field artillery without having had any cardiac symptoms to trouble him, and who had come into hospital for a gunshot wound of the thigh. French writers are of opinion that mitral stenosis is the form of valvular lesion which shows least resistance to active service conditions, whereas aortic disease, when of rheumatic origin, may be viewed more favourably; but it need hardly be said that all valvular lesions, whether mitral or aortic, when of degenerative, arterio-sclerotic origin, are quite unfitted for active service in any form.

But, of course, the war has also disclosed the hitherto unknown weakness of some hearts, just as it has surprised us with the unexpected strength of others. Many of those hearts which give way on active service are, doubtless, intrinsically unsound, though their owners have been able to do their ordinary work in civilian life with little inconvenience, because it has involved no special stress or strain. Hearts are affected less by the actual

amount of work entailed by military life than by the sudden and unexpected demands made upon them from time to time; the same daily output of work might have been accomplished without risk had the man been able to take his own time about it. By testing the reaction of such hearts to exercise no doubt much assistance is gained for making a general estimate of the cardiac reserve power, but the exigencies of active service in the field make a great strain upon the nervous system, and it is this factor which it seems almost impossible to estimate beforehand, at least by any mechanical devices.

French physicians have recorded three definite cases of permanent tachycardia of emotional origin; in each case the tachycardia developed after concussion due to shell explosion. The serious effect of emotion upon the heart was noted long ago by Corvisart during the French Revolution, who said, "I am not the only physician to whom it appeared that organic diseases of the heart during the reign of terror were more frequent than in ordinary times."

Most of these cases with what one might call "subnormal" hearts complain of shortness of breath on quite moderate exertion, at times of giddiness and faint feelings, but most especially of a general sense of exhaustion, occasionally, too, of nocturnal palpitations, but complaint of actual pain has in my experience been infrequent. The most usual physical signs in such cases are a rapid pulse, a diffuse slapping impulse, and at times an indefinite short systolic murmur at the apex, which has really but little resemblance to a true organic mitral murmur. Careful inquiry would elicit that in very many instances these cases had in the distant past suffered either from rheumatism, diphtheria, frequent attacks of influenza, or that during the war they had been in hospital with trench fever or some indefinite febrile disorder. There is little doubt in my mind that these last-named affections do quite definitely impair the efficiency of the myocardium.

On the other hand, malaria, which has affected so large a number of our soldiers and of which I have had the opportunity of seeing a good deal both in Salonica and afterwards at home among the soldiers returning from the various Eastern fronts, seems quite exceptionally to have had more than a transitory effect upon the heart. Many cases have, of course, been much weakened in their general health by the constantly recurring attacks, but, in my experience, it is seldom that cardiac manifestations, when present, can be attributed to malaria. It so happens that many cases of malaria have also suffered from dysentery, and it seems probable that such cardiac weakness as occurs may be due to the dysentery rather than to the malaria. It may be remembered that Da Costa, in his classical article upon "The irritable heart of soldiers," gives as one of the most frequent causes of it "prolonged diarrhoea."

Apart from an occasional case of obvious Graves's disease which has developed rapidly owing to the unfavourable condition of active service, it has not been my experience that the tachycardia so common in soldiers can often be traced to hyperthyroidism, and this seems also to be the experience of Continental physicians, though much has been written to the contrary in this country. A far more potent cause is tobacco, particularly in the case of young soldiers. Among older men arterio-sclerosis is fairly common, at least in its early stages. But on careful investigation it will be found due to causes which were in operation before the man entered the army, but obviously made worse by the abuse of alcohol and tobacco, while the excessive meat dietary, which is so characteristic of the British army, has also a most unfavourable influence upon the condition.

The fact that so many cases suffering from some apparent cardiac disability are not, strictly speaking, cardiac at all has been much insisted upon by many observers, and particularly by British physicians. Such cases might be regarded as conditions of "cardasthenia," on the analogy of neurasthenia, though this latter term has more subtle and wide-reaching connotations than its name would seem to indicate. In any given instance of one of these indefinite cardiac conditions, to determine how much is due to a nervous and how much to a muscular affection must be left to the acumen of the individual physician; it is unlikely that mechanical methods will prove of much assistance in this type of case. Medical labels are bad for soldiers, and perhaps for other people, too, while nothing is more unwise than a false precision. Medical officers are often much hampered by the rigidity of the official nomenclature of diseases, which tends to impress the soldier too much with the name of his complaint, to which he clings with a pathetic persistence; also it leads to that "education of diseases" so strongly deprecated by Plato in the Republic.

A NOTE ON THE THYRO-TOXIC HEART.

BY

G. ROME HALL, M.D.,

DEPUTY COMMISSIONER, MEDICAL SERVICES, MINISTRY OF NATIONAL SERVICE.

CERTAIN conclusions as to the relation of thyroid secretion to the action of the heart seem to be definitely accepted.

1. Prosenchymatous enlargement of the thyroid causes mechanical trouble only, and has no effect on the heart. There is no trouble until a sclerosing process destroys gland substance, then myxoedema may start.

2. It is parenchymatous enlargement that gives trouble.

(*a*) There may be only intermittent overactivity without decided permanent enlargement; this is hyperthyroidism.

(*b*) There may be marked permanent overgrowth, with fluctuating overactivity, culminating in the permanent fast heart of Graves's disease. One form of paroxysmal tachycardia is due to excessive secretion; the rapidity stops short with the cessation of the secretion, and it has been known to occur as the stethoscope was being used.

(*c*) Between these conditions is a minor degree of overgrowth obliterating the inner sulcus along the clavicular ending of the sterno-mastoids, the fullness moving up on swallowing. In some 2,500 cases of recruits classes (*a*) and (*c*) account for 5 per cent. of the cases of cardiac disturbances. This amount of hyperthyroidism amongst men was never suspected until they came to be examined with their throats exposed. The dark or neurotic type has hyperthyroidism ten times more frequently than the blue-eyed.

3. In thyroidism the pupil is dilated. A mild solution of adrenal extract which causes contraction of a pupil not influenced by thyroidism fails to produce contraction when under this action. This is supposed to be diagnostic. Usually in cases of type (*c*), when the question is put, "How do you sleep at night—do you ever wake?" the answer is, "After a sleep I awake frightened." "And what do you notice then?" "My heart is beating very fast, and sometimes I have to sit up in bed." Some of these patients complain of insomnia with the same waking after they have managed to get asleep. Sometimes there is only the history of waking up with night sweats.

4. Adrenal secretion contracts the arterioles and slows the heart if its hormone fails to activate the thyroid. Excessive adrenalism occurs on sudden fright or on profound nerve strain, as in "fright" chorea, or the strain of action, as many take it, as also great mental and physical fatigue in certain constitutions, and from other causes. The first two causes specially concern front-line soldiers and the fatigue group, and even those undergoing only the strain of training at home. If the thyroid responds by activity that balances the excessive adrenalism it is well. But, once set going, the thyroid may secrete for long after the necessity ceases; hence an obstinate tachycardia. There is also a normal permanent secretion of the adrenals, with a corresponding balanced thyroid secretion. If the former falls short, the latter remaining at its normal, there is a potential hyperthyroidism without any enlargement. The pupil reaction to the adrenal secretion with change in blood pressure would be diagnostic.

5. A peculiar fact is that the thin-faced dark type of man, as a rule dolichocephalic, seems to be specially liable to hyperthyroid action—in my figures ten to one gives the relative frequency. I believe there is some connexion between this condition and the secretion of the testes, and that the man not living the sexual life is specially prone to it.

6. In a heart driven by the thyroid secretion the diastole is shortened; in intermittent cases there is a temporary weakening of the myocardium; if permanently driven the heart muscle "rags out" in atrophy. In addition to a

quiet life generally, and the avoidance of over-fatigue when already tired, as cycling when fatigued by a day's work, also constitutional treatment according to any observed defect, there is the use of adrenal or pituitary extract if the original adrenalism has ceased. Personally, where the diastole needs lengthening, I prefer strophanthus, the physiological preparation by preference.

7. I have had a whole group of cases, men discharged from the army certified for valvular disease of the heart. A year after, having lived a normal civilian life in the meantime, there were no adventitious sounds, only slight enlargement of the thyroid with, generally, some depreciation of the heart muscle and its work force, but nothing to be called "heart disease."

8. As regards classification for military fitness, reference should be made to Clause 2: (*a*) These cases, if young, are cured by a hygienic life, as military training. (*b*) If the myocardium has suffered and is altered, they are only fit for sedentary classification. (*c*) The intermediate cases, in which the heart muscle is not yet definitely weakened, but special fatigue cannot be withstood, either because they are beyond adolescence or have some physical flaw handicapping their activity, are only fit for home service gradings, as the strain of action will never occur.

DIGRESSIONS.*

BY

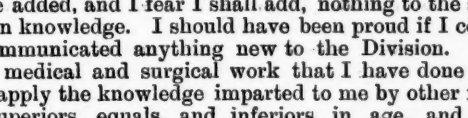
A. J. CAMPBELL, M.A., M.D., C.M.,

CHAIRMAN, SOUTH-EASTERN COUNTIES (SCOTLAND) DIVISION OF THE BRITISH MEDICAL ASSOCIATION.

[After thanking the members of the Division for the honour they had done him in electing him chairman, Dr. Campbell delivered the following address:]

I have added, and I fear I shall add, nothing to the sum of human knowledge. I should have been proud if I could have communicated anything new to the Division. But the best medical and surgical work that I have done has been to apply the knowledge imparted to me by other men—my superiors, equals, and inferiors in age, and my superiors in research and observation. It has, however, been my good fortune to find by the hard professional high road which I have travelled perhaps a greater variety of flowers that have seemed beautiful to me than many of my fellows have found. Even if you call them weeds I shall be pleased if to-day you find them interesting.

The petrol which we burn in our motor engines has lain for many thousands or millions of years in America or Galicia unchanged in chemical constitution. It consists of mixed paraffins whose formulae picture to us long strings of carbon prisoners, each one flanked by a hydrogen guard on each side, with or without two extra guards at the end of the line.



For more than all historic time, long before man knew that he was mortal or hoped that he was immortal, these atoms and their guards lay inert and dead. The longest stretch of hope deferred that can have dulled any of us is a very small fraction of that time. Yet to-day or yesterday Gabriel's trumpet sounded, the spark flashed between the points of the plugs, and without loss of substance guards and prisoners alike found their affinities. What happened can be expressed as a chemical formula:

$$2\left(C_nH_{2n+2}\right) + \left(3n+1\right)O_2 = 2\left(CO_2\right)_n + \left(2n+2\right)H_2O.$$

For a time a little more water and a little more carbon dioxide will float or fall in the atmosphere like disembodied spirits until they find a resurrection of the body in the root and the leaf of a growing plant. Whatever view we hold about the transmigration of souls, none of us has any doubt about the transmigration of bodies.

It is interesting to notice how often the ocellus occurs in animals and plants which have no racial connexion. Darwin, in his *Descent of Man*, mentions it "on the feathers of various birds, on the hairy coats of some mammals, on the scales of reptiles and fishes, on the skins of amphibians, and on the wings of Lepidoptera and some other insects." It also occurs among molluscans on the mantle fringes of the scallop; it occurs inconspicuously on the back of the medicinal leech, and I have seen it at the bottom of a sand-carpeted rock-pool, displayed by a worm, *Sabella arenosa*, in a hole of iridescent tentacles. The name of a rarer congener, *Sabella pavonina*, suggests the peacock tail pattern. In plants we can see it on the face of some pansies and faintly shadowed on the clover head. We see it in the lichen *Parmelia parietina* as it fades from yellow to silver on a whinstone wall. And on a wet day we see it in a lifeless thing when a drop of oil falls on the road. Here the spreading concentric rings of red, purple, pale blue, and bronze, surpass in colour, but hardly rival in outline, the pattern on the peacock's tail. In these days of dear lubricant this meditation on the glory of the quivering iridescence may palliate the pang with which we contemplate the waste of oil. This recurrence of the ocellus pattern is not due to evolution. I am willing to risk a smile and say that it appears to me as one of the signatures of a Personal Artist.

The simulation of the peacock's tail by the oil-drop, or vice versa, leads me to mention a phenomenon in inorganic nature which looks very like reproduction of the living individual. Growth by accretion is familiar to us in inorganic crystals and electroplating, but this is not reproduction. When, however, a drop of ink, or, on a larger scale but less distinct, a drop of strong permanganate solution falls from a height into a vessel of water, the vortex ring gives birth almost immediately to triplets, and these again to triplets. The multiplication of the species goes on at a rate that might appal the Bishop of London himself.

I am a hypermetrope, and need about one dioptre to correct my refraction; I need no cylinder. The asthenopia from which I suffered in my late teens was a hindrance to me in concentrated study. It was not corrected till I was about 30. Scores of times I have read a paragraph four times over without taking in its meaning; all my available energy was pouring down my third nerves to focus on my retina impressions which the occipital lobes never sent forward to the mental department of the brain, wherever that is. The inclination to relieve the strain by looking up from his book is irresistible in a hypermetropic child. Such a boy in church catches sight of "the bumblin' bee in windie glasses"; in school meets the eye of the other hypermetrope at the far end of the room, so that both of them get whacked. He is quick in picking up a new subject from the blackboard, but not a good plodder at his desk. He is wax to receive, but he is not marble to retain. If after much pain he escapes being jack of all trades and master of none, if he has the honour to be president-elect of the South-Eastern Counties Division, his inaugural address is discursive, like this.

The myope, on the other hand, has no such tendency to leave his concentrated study. He is a better plodder, and except in so far as he cannot see the blackboard and the wall map he gets on better with his lessons.

Now the hypermetrope can by effort correct his defect, and is often unconscious of it, while the myope's defect, unless very small, is more readily detected. For this reason a greater proportion of myopes wear spectacles than of hypermetropes. The concave anterior surface of the myope's negative lens reflects to a focus in front of it a glare of light which the hypermetrope's does not. Moreover, the hypermetrope's eyes are apparently magnified by his glasses and the myope's eyes are diminished. Also the thick-rimmed lenses of the myope are more kenspeckle than the thin edged lenses of the hypermetrope. We see the hypermetrope's eyes and the myope's glasses. For these four reasons the convention of fictional illustration has been to stick conspicuous spectacles on the nose of the learned professor. He is often treated as a comic character. This is not true to life; it is the uncorrected myope not the corrected one who makes the funny blunders, who apologizes to the lamp-post. The corrected myope is as wideawake as anybody. Thackeray and Tennyson were, and Kipling is, myopic.

I began to wear spectacles for distance constantly when I was about forty. I had never been colour blind, but it was only after this that I began to find distinct pleasure in colour as apart from shape. I had always seen green trees; now in spring I saw the ruddy green of the young

*An address delivered before the South-Eastern Counties of Scotland Division of the British Medical Association.

plane-tree leaf, the silver green of the willow, the yellow-green of the new and the blue-green of the old pine foliage. I cannot quite explain why my enrichment lay rather in red and green than in blue and yellow, for which latter pair a larger area of retina is said to be sensitive. A few narrow escapes when bicycling showed me that the uncorrected periphery of my field of vision was not warning me so well as it used when all my light passed through the same refractive media. I suppose that the improvement was due to the fact that a greater quantity of light and colour was passing through the pupils, now enlarged by the cessation of accommodative effort. I suppose, also, that the whole of my red-green field was covered by my spectacles, while the peripheral parts of my blue-yellow field were receiving past the side of the glasses a quantity of unfocussed rays, and were thus at a relative disadvantage.

Or, again, the whole thing may have been psychical education even thus late in life. Many of my friends of recent years have had keen sense of colour. They may have drawn my attention more than was my wont to what I had always seen and seldom noticed.

The doubt as to where discrimination of impression takes place also applies to the sense of hearing. Does inability to measure musical interval and analyse chords depend on the cochlea or the cerebrum? Rutherford said it depended on the cerebrum, and Helmholtz said the cochlea. A friend of mine who knows a good deal about the physics of sound, who can explain harmony without hearing it, cannot tell harmony when he does hear it, and cannot tell an octave from a seventh or a ninth; while my little daughter, aged 10, who does not know that sound depends on rarefactions and densations of air, can yet tell harmony from discord and musical discord from noise. This inability and this ability seem to indicate that the end organ, the cochlea, is where the difference lies. Very few people can tell where the mean pitch of the well-tuned piano is faulty in any scale, but, taken as a class, violinists are better at this than organists and pianists. This would lead us to attribute discrimination to the educated cerebrum. Piano-tuners learn their trade; this again looks as if the cerebrum were the place of discrimination. On the other hand, piano-tuners work largely by the presence or absence of beats in slightly dissonant notes, and these beats are perceived rather as differences in intensity of sound than as differences of pitch.*

Russell Wallace's book, *Man's Place in the Universe*, has as its main proposition that organic life like ours cannot exist in any other world known to us and is unlikely to occur in any other world at all. The conditions of temperature, and the oxygen atmosphere necessary for carbon nitrogen protoplasm are found on no other member of our planetary system, and are unlikely to be found in any other solar system. I once saw the suggestion that organic life might be conceived of with silicon as a protoplasm basis and iodine as an atmosphere. At first we are apt to think of brittle glass creatures until we remember the radiolaria and the equisetineae. But a siliceous protoplasm need be no more glassy than a carbonaceous protoplasm is crystalline like diamond or opaque like graphite. There are some substitutions known to us slightly analogous to this. The blood pigment in some molluscs and crustaceans has copper in it where haemoglobin has iron, and the main difference between the empirical formulae of haemoglobin and chlorophyll is that haemoglobin has iron where chlorophyll has magnesium.

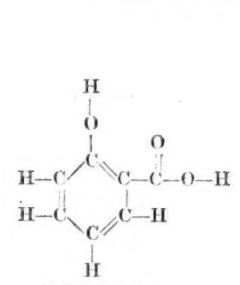
To what do all these disconnected fancies tend? Perhaps they lead no whither. They have interested me, and they do more. They are to me a partial revelation in religion protecting my hopes from the chloroform-like euthanasia which Metchnikoff offers in his *Nature of Man*. Some of the fancies of which I have half playfully told you encourage me by analogy to hope for a life after death. My hope is quite independent of what is usually called "spiritualism," a subject of which I have no experience. I wish to dissociate myself from all disrespect towards researchers in spiritualism, whose methods I have no more right to criticize than those of Sanscrit scholars.

It is difficult to think of leucocytes as other than individuals. Their military patrol of the body on and off the blood vessel highways which they share with their civilian brethren the red corpuscles, their mobilization in greater numbers in the garrison towns, the enlarged glands, along the line of threatened advance of invaders—of these we have known since our college days. We have learnt later of their educability by vaccines: how they can be practised on dead bacteria as our young soldiers learn bayonet fighting on dummies; how they can be better practised, though with more risk, on sensitized vaccines where the bacteria are only stunned, just as an inexperienced battalion may be seasoned at the cost of a few lives against the weaker units of the enemy.

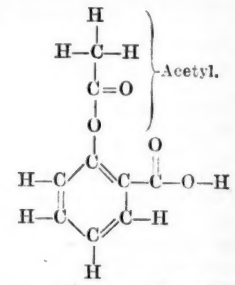
If an amoeba could be imagined to think of a future life it might ask for plenty of pabulum, uniform physical conditions, a well-defined nucleus, or perhaps a number of nuclei. It would find these if it were a leucocyte. Yet with all its blissful individuality the leucocyte is but one cell of the macrocosm which you are or the microcosm which I am.

The Eastern ideal of the destiny of the soul is that it shall be lost in fusion with the infinite soul. To our Western minds the loss of individuality is not attractive. We are perhaps not so anxious about our own personality as about that of our friends, whom we hope to meet again not altogether different from what they were.

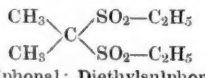
When we go even lower than unicellular organisms there is an individuality in chemical molecular groups. Aspirin is not the same as salicylic acid, the acetyl radicle makes the difference; sulphonal is not the same as trional



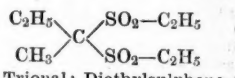
Salicylic acid.



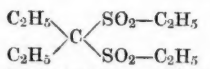
Acetyl salicylic acid (aspirin).



Sulphonal: Diethylsulphone dimethyl methane.



Trional: Diethylsulphone methyl ethyl methane.



Tetronal: Diethylsulphone diethylmethane.

or tetronal—the ethyl radicles make the difference. The saturated paraffins are inert, but if a hydrogen atom is taken away from methane, ethane, or butane the methyl, ethyl, or butyl can modify greatly the molecule to which it is joined. On this analogy it is possible to imagine fusion without loss of individuality. We should be glad to contain in ourselves the musical power of Beethoven, the courage of Nelson, the scientific imagination of Darwin and Helmholtz, the colour sense of Leader and Turner, the form sense of Blake and Flaxman, the poetic imagination of Browning, and the word mastery of Tennyson. In some future state the psychically good part of each of us may conceivably be fused with the complementary good in some others to form a being which will far transcend any of its components. The very physical and mental defects which we now deplore—timidity, ill health, Milton's blindness, Beethoven's deafness, Blake's insanity, Turner's astigmatism, Darwin's want of musical ear, Browning's bereavement—may be the open chain-links, the haptophores, or amboceptors, to join us to our affinities.

There is a curious passage in the Book of Revelation, xxi, 9, 10: "There came unto me one of the seven angels . . . and talked with me, saying, Come hither, I will show thee the Bride, the Lamb's wife. And he carried me away in the spirit to a great and high mountain, and showed me that great city, the holy Jerusalem." The metaphor seems mixed indeed. How can a city be a bride? A city is not only a collection of buildings, it is also a collection of citizens. But take the word in

* When I wrote the above I had not read Sir Thomas Wrightson's book.

whatever sense you will, the official handbook of the Christian religion reiterates metaphors like this: "They without us should not be made perfect." "We who are many are one body." "Members one of another."

If everything we value in the personality of ourselves and our friends is conserved, every sense corrected and made keen, every passion cleansed and strengthened, memory cleared of rubbish and set in order, our defects made good and circumstances granted of the same kind as we have already experienced but somewhat better—that would be the earthly paradise of our dreams.

But if with all this there is a further stage of synthetic creation, and if all the collective intellect and emotion of mankind be in some way unified in a Person meet to hold such fellowship with God as is expressed in the words, the Bride, the Lamb's wife, that were a destiny too great for us to contemplate as yet. We may speak the words lightly if we do not think of what they may mean; if we try to measure their content we dare hardly breathe them.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

BLOOD TRANSFUSION AND RESUSCITATION.

The difficulty of finding time to give blood to the large numbers of wounded men requiring blood transfusion has been felt by all surgeons during a busy time in a casualty clearing station.

The following routine has enabled us to give blood, in all cases in which indications for blood transfusion existed, and also to carry out in cases with multiple wounds very complete, shock-producing, sepsis-combating operations, which could not be undertaken successfully without the aid of blood.

The citrate method of blood transfusion is used. Robertson's technique in drawing blood from the donor is adopted; the blood is administered through funnel, tube, and cannula, into a vein by being poured from the bottle into the funnel. Several sets of apparatus and bottles are kept. The team sister keeps a sterile set of blood-giving instruments in a tray ready for immediate use during the tour of duty. Before the team goes on duty blood is drawn from donors; two or three bottles of 600 c.cm. each are generally found sufficient for a team doing resuscitation cases.

The receiving tubes and cork are removed from the bottle after the blood is taken, and the opening plugged with sterile gauze. The bottle can then be placed in a bath of water pleasantly warm to the hand. Citrated blood can be kept thus for twelve hours, and then administered with good results.

We have given citrated blood thirty-six hours after being drawn from the donor, but its safety after twelve hours has not yet been fully established. As many as six bottles of blood have been collected for two teams and used during their tour of duty.

The advantages of this routine are, that there is no delay for taking blood between operations, and the blood can be used quickly and freely when urgent symptoms arise in any patient in the hospital. If the blood is not used in one casualty clearing station because there is no suitable case, it need not be wasted, but can be taken to another of the group receiving wounded.

We have now used this routine in over fifty blood transfusions, given during "rush" times. Two teams operated in fourteen hours on forty-one cases of light and serious wounds, and did six transfusions. It took a medical officer an hour and a quarter to draw six bottles of blood before the wounded arrived.

For seven days one team on night duty operated on from eight to ten heavy resuscitation cases, and in addition did two to three transfusions each night.

Although finality in methods of resuscitation has not nearly been reached, gratifying results in the largest numbers of cases under casualty clearing station conditions have been obtained from the following procedures.

The treatment in the resuscitation ward is short in all cases, except in those with clean bullet wounds where there is no danger of the resuscitated patient dying of sepsis from delayed operative treatment. Forced fluids, 8 oz. by mouth and 8 oz. by rectum, are administered every half-hour, and charted, by special sisters and orderlies, who must enter with enthusiasm into the work. The operation is done under gas and oxygen, or in suitable cases under spinal anaesthesia. Towards the end of the operation the anaesthetist administers the blood, and if indicated 1,000 to 1,500 c.cm. of sodium bicarbonate solution are also run in. In this way no time is lost. Forced fluids are continued when the patient returns to the ward.

E. T. C. Milligan, Captain R.A.M.C.,
Surgical Specialist, — Casualty Clearing Station, B.E.F.

Fred. L. Napier, Captain R.A.M.C.,
Anaesthetist, — Casualty Clearing Station, B.E.F.

EXTEMPORIZED EAR SPECULUM AND MIRROR.

There are frequent occasions in the field when an ear speculum is not available. Diagnosis of ear complaints then becomes mere guess-work. I therefore venture to describe home-made appliances. The speculum is formed by rolling into shape around the end of a well pointed pencil a bright piece of thin "tin," such as is employed in hermetically sealing tobacco or cigarette tins. The tin can be cut into proper shape by the shears supplied in the field fracture box and the edges smoothed with the file also contained in that box. A hand mirror, sufficiently good for the purpose, may be evolved from the lid of a tobacco tin, through the centre of which a small round hole has been drilled.

A. R. Rendle,
Captain R.A.M.C.(T.C.).
N. Russia.

Reports of Societies.

DISCUSSION ON INFLUENZA.

The following is a continuation of the report, printed at p. 574 in our last issue, of the discussion on influenza at a meeting of the Fellows of the Royal Society of Medicine held on November 13th.

In discussing the morbid anatomy of the disease Dr. B. H. Spilsbury said that he regarded the condition as a primary infection of the air passages by Pfeiffer's bacillus, the failure to find this organism in 40 per cent. of his *post-mortem* cases being due either to the search not being sufficiently thorough or to the organism having disappeared before death. Following this infection an invasion of the air passages and lungs by pneumococci or streptococci occurred, one of these organisms being responsible for the pneumonias. The changes found elsewhere in the body were due to acute toxaemia, and in no case had he found a pyaemic or septicaemic condition.

Sir Bertrand Dawson, speaking from the clinical side, said that though the onset was generally acute, it might be subacute or insidious. The seriousness of the cases depended upon the relative prominence of (1) the septicaemia, and (2) the amount of involvement of the respiratory tract and its nature. The evidence tended to show that Pfeiffer's bacillus played a dominant part as a pioneer preparing the way for other organisms.

Colonel W. Longcope, U.S.M.C., said that by segregation and isolation it had been possible to prevent the spread of the disease in hospitals. In one hospital the patients were segregated according to the germ found, with the result that very little pneumonia developed.

Dr. R. Murray Leslie said that pulmonary tuberculosis was a late complication. He had had under his care during the past few months young soldiers showing symptoms and signs of tuberculous disease within periods varying from a fortnight to four or five months after an attack of influenza.

Captain W. E. Carnegie Dickson, R.A.M.C., gave an account of his experience of his "mixed influenza vaccine" with the approximate composition, taking the whole as 20, of streptococci 5 parts, staphylococci 5 parts, pneumococci 3 parts, minute Gram-negative influenza-like bacilli 3 parts, Friedländer's bacilli 2 parts, other organisms (*M. catarrhalis*, etc.) 2 parts. In prophylactic use 60, 100, and 150 million were given to adult males at weekly intervals; 40, 60, and 100 million to adult females. The amount of reaction produced by these doses appeared suitable in the majority of cases. In most cases without pulmonary complications the disease appeared to be shortened and the occurrence of complications prevented. In the severe cases, though the vaccine appeared to be helpful, there were not a sufficient number of cases upon which to base a scientific opinion. He had given the vaccine prophylactically to about 150 persons, and so far

as he could ascertain only two had developed anything resembling influenza, and these were doing well. He had recently found small Gram-negative influenza-like bacilli in many of the cases of chronic bronchitis in which, clinically, there was no suspicion of influenza. He was convinced that such cases constituted a reservoir of influenzal infection in this country.

Surgeon Captain P. W. BASSETT-SMITH, R.N., gave an account of the prophylactic vaccine prepared in quantity at the Royal Naval College, Greenwich, and distributed to the dépôts and to ships of the Grand Fleet, to be given to all on a voluntary basis. Its composition was as follows: *B. influenzae* (3 to 5 strains) 60 million per c.cm.; streptococci (3 to 5 strains) 40 million per c.cm.; pneumococci (3 to 5 strains) 200 million per c.cm. Dose: First inoculation, 0.5 c.cm.; second inoculation, 1.0 c.cm. One medical officer reported that in the course of the inoculations ten cases occurred. Four of these had received one dose on the day of onset only. All ran a very mild course. Of the six not inoculated, two were mild and four severe, with one death. At Greenwich 1,000 boys of the Royal Hospital School had received both inoculations, and no case had occurred amongst them, though the disease was prevalent in the district.

Captain H. E. WHITTINGHAM, R.A.M.C., attached R.A.F., described the vaccine prepared by him and Dr. Carrie Sims. It consisted of the following organisms: Streptococcus, pneumococcus, and *Micrococcus catarrhalis*, of each 50 million; meningococcus and *B. influenzae*, of each 30 million. The first dose was 0.5 c.cm.; the second, given seven to ten days later, 1 c.cm. The curative dose was one-tenth of this strength, and was given daily in some cases, in other cases every second day. In one institution, out of 305 persons (156 inoculated and 149 uninoculated), the case incidence was 5 per cent. among the inoculated and 12 per cent. among the uninoculated. Those who were inoculated had only slight attacks, lasting about forty-eight hours; in those uninoculated the disease was more severe, lasting five to seven days in the milder forms and being more prolonged in the complicated cases. Pulmonary involvement was distinct in seven of the cases.

Lieut.-Colonel C. E. COOPER COLE, C.A.M.C., spoke of 125 cases treated with polyvalent antistreptococcal serum. Early mild cases cleared up forthwith, and in extremely toxic cases reduction in the toxaemia appeared to follow.

Mr. E. B. TURNER spoke of his experience of treatment by salicin, which seemed to have a remarkable effect in cutting short the disease, preventing complications, and destroying the infectivity of the patient. Treatment should be commenced at once. Very large doses were necessary, so that the patient should be drenched with salicin. He began by giving 20 gr. hourly for twelve hours in cachet form. Less was of no use. These large doses he had found harmless even in cases of heart disease.

TYPHOID FEVER IN INOCULATED SOLDIERS.

AT a meeting of the Section of Epidemiology and State Medicine of the Royal Society of Medicine on November 8th, the President, Dr. E. W. GOODALL, being in the chair, Captain FRED. M. MEADER, M.C., gave an account of an outbreak of typhoid fever in a company of United States soldiers which presented remarkable features. The essential facts were as follows: On the arrival of the unit at an American rest camp in Europe on July 18th, 1918, suspicious cases were observed, and altogether 38 soldiers developed typhoid fever in the camp, from 18 of whom *Bacillus typhosus* was isolated. The organization had left the camp before the diagnosis was established, and other cases occurred elsewhere; in all, 95 cases out of a company of 248 men were discovered. The unit left a cantonment on June 15th, and *en route* for New Jersey was taken for a swim in a shallow lake. The men embarked on June 21st and reached Liverpool on July 10th. One man was ill on leaving the original camp, the second case developed on June 19th, the third on June 21st, the fourth on June 24th, three on June 26th, four on June 29th, five on July 6th, after which a case developed every day up to the time of arrival in the rest camp. The development of a considerable group of cases during the latter part of the month of June and the early part of July suggested a common origin. No cases developed among members of other units in contact upon the transport. Captain Meader suggested that infection occurred either (1) in the train early in the journey, or (2) during the bath in the shallow lake, massive infection being perhaps due to the first man to sicken, who was one of the bathers.

Captain CLINTON B. HAWN, M.C., submitted a clinical study of the cases, from which it appeared that the symptomatology and fatality were those of classical typhoid. All the men had been inoculated, many of them several times and at different posts, and the agglutinins for typhoid and paratyphoid A and B in the cases investigated by Captain J. G. HOPKINS, M.C., reached a titre normal for recently vaccinated men.

In opening the discussion, Major-General Sir WILLIAM LEISHMAN, F.R.S., expressed the opinion that massive and repeated infection owing to the close aggregation of the men on ships seemed the most plausible explanation of the outbreak. He was satisfied by the evidence adduced that the men had been properly inoculated, nor did he think that the strain of typhoid bacillus isolated from the cases had been proved to differ in any important respect from the ordinary strains. No comparable instance of failure of vaccine had occurred in the British experience.

Dr. FOORD CAIGER concurred with Sir William Leishman in thinking the close association of the men in the train and on shipboard a more probable source of infection than bathing together on one occasion. The failure of the vaccine was naturally disappointing; he thought that perhaps the length of time since inoculation, which seemed to have been in most cases eight or nine months, combined with massive infection, might explain the sequence. No vaccine could afford protection against a virus if introduced in overwhelming quantity.

Lieut.-Colonel HARVEY, C.M.G., suggested as a possibility that the fact that the men were inoculated frequently and at short intervals of time with varying doses of different strengths of bacilli might have resulted not in an increased immunity for the typhoid element of the vaccine, as would have been the case had an interval of some months been allowed to elapse between the various series of inoculations, but in a decrease of immunity. For instance, one man was stated on the protocol to have completed his typhoid inoculations on October 23rd and his paratyphoid on October 28th, 1917.

BRITISH ORTHOPAEDIC ASSOCIATION.

THE first annual meeting of the British Orthopaedic Association was held at the rooms of the Medical Society of London on July 27th and 28th, 1918.

Mr. MUIRHEAD LITTLE, senior surgeon to the Royal National Orthopaedic Hospital, the first President of the Association, delivered the presidential address, as follows:

ORTHOPAEDICS AND GENERAL SURGERY.

When subcutaneous surgery was first given to the world, more than eighty years ago, orthopaedic surgery began to flourish. But after the passing of a generation it lost favour in the eyes of the profession, so that in 1872 a medical journal in this country denounced orthopaedic hospitals and specialists as unnecessary. Nine years later, in 1881, a request that an Orthopaedic Section should be included in the International Medical Congress, to meet that year in London, was refused. It was not until the Berlin Congress of 1890 that an Orthopaedic Section was formed, largely owing to our American colleagues, who in the meanwhile had founded the American Orthopaedic Association. The medical journalist of 1872 claimed that there was no general hospital where deformities would not be properly treated, and no general surgeon who would not so treat them. Experience showed that this claim could not be substantiated. Sufficient experience for the successful treatment of deformities could not fall in the way of very many surgeons. The specialty was unjustly condemned, but there is no doubt that it had fallen into disfavour. Why was this? Partly, no doubt, from too much conservatism and too great reliance on subcutaneous methods to the exclusion of bolder treatment, which the work of Lister had begun to make successful. Even across the Atlantic in later years some of the founders of the Orthopaedic Association protested against the radical procedures adopted by the younger men. It used to be said that orthopaedic surgery

was moribund. I venture to think that to-day it is not the specialist but the general surgeon who is in danger of becoming extinct. A surgeon to succeed must take up a special line. The scope of surgery has become so vast, its technique has become so elaborate, that only a man with the powers of a Whewell could hope to be proficient all round.

This calamitous war has some compensations, one of which is the recognition of the need for trained orthopaedic surgeons in the treatment of many injuries. This is due to the example of our New England friends, and to the efforts of our Inspector of Military Orthopaedics, Sir Robert Jones. What would the journalist of 1872 say if he could know that in 1918 there are 30,000 military orthopaedic beds under the direction of a specialist appointed by the Government? The ground thus won should not be lost. In the public interest the treatment of fractures should be taught in all medical schools by orthopaedic surgeons. At present in at least one large metropolitan hospital with a medical school attached cases of fracture are not admitted to the wards, and the students from that school must start practice with no practical knowledge of the treatment of fractures of the lower extremity, and very little of orthopaedic surgery generally. Is it surprising that bonesetters and the like flourish?

May the British Orthopaedic Association have a long and prosperous future, and serve the public weal by securing for the country at large the services of surgeons well trained in the most up-to-date orthopaedic methods!

Discussions.

Two set discussions were held, the first on "The indications, technique, and results of tendon transplantation in gunshot injuries of nerves," introduced by Major T. P. McMurray and Mr. A. Rocyn Jones; the second upon "The Abbott treatment of scoliosis," introduced by Captain Aitken and Lieutenant Trethowan. In each case there was an active discussion in which not only members but also visitors from Canada, New Zealand, and America joined.

Theses.

Candidates for membership of the Association (after the nomination of the original members) must present a thesis upon some subject in orthopaedic surgery, which must be accepted by the Nomination Committee. Theses were read at the meeting by three newly-elected members: Mr. G. R. Girdlestone (Oxford), on "The results of the Albee operation for Pott's disease"; Mr. T. E. Hammond (Newport), on "The non-operative treatment of nerve lesions of the upper extremity"; Mr. P. J. Verrall (London), on "Stiff fingers, with special reference to methods of treatment by metal and plaster splints." Mr. E. G. Schlesinger was also elected a member, but his thesis was not read on account of his absence on active service.

Other Contributions.

Mr. R. C. Elmslie and Mr. H. Platt read papers on pseudo-coxalgia; Mr. J. Jackson Clarke on the open operation for congenital dislocation of the hip-joint; Major Alwyn Smith on the preparatory treatment of amputation stumps; and Mr. Laming Evans on clonic spasmodic contraction of the muscles around the hip-joint.

In the Journal of October 12th, p. 408, we announced that the War Cabinet had appointed a committee to consider No. 40 D of the Defence of the Realm Regulations. On November 25th an Order in Council was made repealing a number of the Defence of the Realm Regulations, including No. 40 D. This regulation is revoked on the recommendation of the committee, which, without pronouncing any final opinion upon its merits, advised that in its present form it should be regarded only as a war measure, and should be dropped on the cessation of hostilities. The London Association of Medical Women, at a meeting on November 19th, after passing a resolution condemning Regulation 40 D, discussed constructive proposals for arresting the present widespread increase of venereal diseases. Among the measures discussed were regulations for keeping public thoroughfares free from solicitation by either sex; the raising of the age of consent; the registration of lodgings for young people; the punishment of brothel keepers by imprisonment without the option of a fine; the provision of women police in adequate numbers; and the attendance of women in police courts at the hearing of cases concerning women and children.

Reviews.

THE BETTER TREATMENT OF MENTAL DISEASE.

In *A Plea for the Insane*,[1] Dr. Weatherly presents the case for reform in the care and treatment of mental diseases, in the hope of rousing the public to agitate to get a new Lunacy Act passed. The book is therefore addressed primarily to the general public, and gives the point of view of a medical man who has had a long experience in dealing with the insane. It is opportune in the time of its appearance, as it helps to swell a movement already on foot. It happens that it almost coincides in its appearance with the report of the Board of Control, which makes a number of important recommendations for the amendment of the law. In many respects these are identical with those urged by the author. His proposals fall for the most part under the following heads:

1. Education and conversion of the public in its attitude towards insanity.
2. Extension of the voluntary boarder system.
3. Legalization of the treatment away from home of early cases of mental disease without certification.
4. Improved methods of housing the insane.
5. Improvement of the medical services of institutions for the insane.
6. Revision of the law defining the criminal responsibility of the insane.
7. An improved spirit of administration and simplified machinery, excluding the taint of pauperism and the use of terms and procedure likely to alarm or hurt the feelings of patients.

It will be seen that of these proposals Nos. 2, 3, and 6 require legislation, whereas Nos. 1, 4, 5, and 7 are largely questions of administration and finance. Proposals 2 and 3 are covered by the recommendations of the Board. No. 6, though affecting the interests of the insane, does not fall under the head of lunacy legislation but under another category. The author is frankly hostile to the present Act and its administration; without discussing pros and cons, he pins his faith to a redrafting of the whole Act with the assistance of the Board of Control and medical men selected for their special experience. It seems, however, that most of the reforms advocated could be achieved by a short amending Act, and that to clamour for a new Act is to risk deferring them to the Greek Kalends. Dr. Weatherly urges that the power to treat early cases without certificate should not be limited to six months, as suggested by the Board, but be open to renewal, and there is much to be said in favour of this view. He vehemently deplores the attitude of the public in regarding insanity as carrying a special stigma. It is difficult to believe that lecturing will alter this attitude. In so far as the "stigma" is regarded as a mark of personal disgrace, it is of course unjust, and the most helpful things would be to show by the method and the success of our treatment of mental disorders that they can in many cases be looked upon as curable, like other ailments; to safeguard the patient from feeling that he comes under any stigma; and, if possible, to save him from it as an actual fact.

The greater part of the book is occupied with the chapters headed "Legislation," by which is apparently meant the law as it at present stands, "Institutions for the insane," and "Suggestions for reform." "Criminal responsibility" and "Testamentary capacity" are dealt with in a superficial manner, and no very definite or helpful conclusions are reached. The author seems to be unaware of the important report of the Council of the British Medical Association on Crime and Punishment adopted by the Annual Representative Meeting in 1915, which goes very fully into the former question.

While agreeing on the whole with the case presented for reform in its main outlines and with the remedies suggested, which are generally in accord with those recently put forward in this Journal, it is impossible to escape the impression that the book is marred by the way in which the subject is handled. The writing throughout is regrettably slipshod, and there is much unnecessary repetition of arguments and introduction of matter outside the scope of

[1] *A Plea for the Insane.* By L. A. Weatherly, M.D. London: Grant Richards. 1918. (Demy 8vo, pp. 238. 10s. 6d. net.)

he work. Personal feelings are expressed with extravagance and some bitterness, and opinions are put forward with a lack of moderation which will not add to the strength of the case in the eyes of serious readers. This is unfortunate, as there is much interesting and useful information in the book.

WAR SURGERY.

IT is devoutly to be hoped that the need for complete and competent guidance in the primary surgery of gunshot wounds will soon be no longer felt. There will remain the necessity for authoritative direction in the late treatment of war injuries and their complications; and if this seed is not to be sown in barren ground there ought to be a thorough and intelligent understanding of the physiology and pathology of tissues damaged under conditions of war sepsis. Not for this reason only do we welcome the two volumes, *War Surgery, from Firing Line to Base*,[2] by Major BASIL HUGHES and Captain STANLEY BANKS, and *Surgery in War*,[3] by Lieut.-Colonel HULL; they form in addition a permanent record of the great recovery made by British surgery after the early failures into which it was betrayed by the magnitude of the advances made under the aseptic régime.

Comparisons between the two works before us would perhaps be invidious. Certainly both fulfil their object admirably, and both are deserving of the highest praise; but, if we were forced to discriminate, it must be said that there is a personal flavour about Major Hughes's book—a breath so strong of the fighting front and the whole pilgrimage to the base that it can be read with close interest even apart from its clear presentation of the complete surgical picture. The figures are very good, and the coloured plates are a joy. The pathological sections right through the volume, and in particular the applied bacteriology, are full and clear and most instructive.

Colonel Hull's book, besides his own solidly valuable work, contains contributions by Captain Miller on wounds of the chest; by Captain Petrie on wound infection; by Captain Tracy on the jaw and face; a carefully considered contribution by Major Jocelyn Swan on the peripheral nerves and on the later treatment of bone injuries; and, what is perhaps the cream of the book, a study of wounds of the abdomen by Colonel Owen Richards.

THE CAUSE AND PREVENTION OF SCURVY.

IN view of the fact that outbreaks of scurvy have occurred at various times, both in this country, and abroad in His Majesty's Forces, and in order to guard against a recurrence of such outbreaks, especially at places far removed from sources of supply, the Royal Society Food (War) Committee has thought it advisable to issue the following statement, based chiefly upon investigations carried out at the Lister Institute.

THE CAUSE AND PREVENTION OF SCURVY.

1. Scurvy, like beri-beri, is a "deficiency disease," and is due to the long continued consumption of food lacking in an accessory food substance or vitamine. The view that scurvy is due to tainted food must be abandoned.

2. This vitamine is contained in a number of fresh foods: in largest amount in oranges, lemons, and fresh green vegetables; in considerable amount in roots and tubers, such as swedes, potatoes, etc.; and in small quantities in fresh meat and milk. It is deficient in all dried and preserved foods.

3. It is destroyed by prolonged heating, such as takes place during stewing. Thus potatoes in stews would be devoid of vitamine, but if boiled rapidly will still contain some quantity. Alkalis rapidly destroy antiscorbutic properties. Soda should therefore not be added to the water in which vegetables are soaked or boiled.

4. Before the onset of definite symptoms of scurvy there is a period of debility and weakened resistance to disease. The occurrence of cases of debility in any body of troops without sufficient cause should at once direct the medical officer's attention to the sufficiency of the diet.

Prevention of Scurvy.

5. West Indian lime juice, as ordinarily prepared, is useless for the prevention of scurvy. Fresh limes have an antiscorbutic action, but their efficiency is only one-fourth that of lemons. The so-called "lime juice," by the regular administration of which scurvy was eliminated from the navy during the first half of the nineteenth century, was really lemon juice obtained from the Mediterranean. The history of Arctic exploration affords numerous examples in which scurvy was prevented for long periods of time by the agency of lemon juice regularly taken. Nares's expedition of 1875, notorious for the serious outbreaks of scurvy encountered, was the first to be provisioned with "lime juice" prepared from West Indian limes. Orange juice is as effective as lemon juice.

6. Potatoes and root vegetables have a distinct value in the prevention of scurvy—much less, however, than green vegetables or fresh fruit juices. A daily ration of 14 oz. of potatoes, boiled rapidly but not stewed, will suffice to prevent scurvy.

7. Pulses, beans, peas, and lentils in the dried condition have no antiscorbutic properties. If, however, the dried seeds are soaked in water and are allowed to germinate for a short period, one or two days, they develop the antiscorbutic vitamine. At the same time these pulses are also rich in the vitamine which prevents beri-beri, and are, moreover, valuable foods.

The method adopted for germination is as follows: The beans, peas, or lentils are soaked in water at room temperature (60° F.) for twenty-four hours. The water is then drained away, and, to permit germination, the soaked seeds are spread out in layers, not exceeding 2 to 3 inches in depth, and kept moist for a period of about forty-eight hours at ordinary room temperature (60° F.). They should not be allowed to dry after this operation, but should be cooked as rapidly as possible (lentils, 20 minutes; peas, 40 to 60 minutes).

8. The antiscorbutic value of fresh meat is very low in comparison with that of fresh vegetables and fruit. If fresh meat is consumed in large quantities, 2 to 4 lb. a day, scurvy will be prevented. Tinned and preserved meats possess no antiscorbutic value. Frozen meat, while more valuable than preserved meat, must be considered inferior to freshly killed meat in this respect.

Methods of Cooking.

9. The destruction of the antiscorbutic properties depends rather upon the time than the temperature employed. All foods, especially vegetable, should be cooked for as short a time as possible at boiling point. Slow methods of cooking, such as stewing with meat or simmering below boiling point, should be avoided. Potatoes should be plunged into boiling water and the boiling continued for twenty to thirty minutes after the boiling-point has again been reached. Frozen meat should be roasted when practicable.

SUMMARY OF MEASURES RECOMMENDED FOR THE PREVENTION OF SCURVY WHEN FRESH VEGETABLES ARE UNOBTAINABLE.

(*a*) The lime-juice ration should be replaced by lemon juice. The ration should be 1 oz. daily served with sugar.

(*b*) Cooked germinated peas, beans, or lentils should form part of the regular daily ration.

(*c*) Attention should be paid to the methods of cooking employed, as set forth under 9.

November 15th, 1918.

[2] *War Surgery, from Firing Line to Base.* By Basil Hughes, D.S.O., Major R.A.M.C.(T.F.), and H. Stanley Banks, Captain R.A.M.C.(T.C.). London: Baillière, Tindall, and Cox. 1918. (Royal 8vo, pp. x + 623; 373 figures, 9 coloured plates. 30s. net.)

[3] *Surgery in War.* By Alfred J. Hull, F.R.C.S., Lieut.-Colonel R.A.M.C. Second edition. London: J. and A. Churchill. 1918. (Demy 8vo, pp. xv + 624; 210 figures. 25s. net.)

THERE are seven medical members of the Dutch Parliament.

IN Austria-Hungary, at the end of December, 1917, 2,000 army doctors, over 10,000 ex-civilian doctors, and 2,500 Landsturm civilian doctors were engaged on army work. In addition, 3,000 civilian chemists and 4,500 first-year medical students (volunteers) were employed by the army. During the war about 800 medical students had qualified as medical practitioners.

British Medical Journal.

SATURDAY, NOVEMBER 30TH, 1918.

THE HOME-COMING OF THE CONSUMPTIVE SOLDIER.

For many months to come the brave men who have suffered all the toils and terrors of warfare by land and sea in defence of right will be returning home, assured of a present welcome, but in too many cases by no means assured of future welfare. The case of the consumptive sailor or soldier whose period of active service has resuscitated his dormant disease is one that demands prompt and energetic action, not only in the interest of the man himself, but also on behalf of his children and of others with whom he may be brought into close personal contact. It has been estimated that 200,000 men have, in varying degree, developed tuberculosis as a direct result of active service during the last four and a half years. Many of them have already been admitted to treatment, but for the vast majority of this great company of sufferers there is no adequate provision at the present time. Not only must they continue to make the best of conditions which only conduce to the advancement of their disease, but they must also be a daily source of risk of infection to all young children, and especially those of their own family. With the advance of the illness the danger of the spread of the infection becomes ever proportionately greater, not to adults, but to young persons below the age of 15, in whom the seeds of tuberculosis are only too easily implanted, although the indications of such infection are almost always overlooked.

In the interest, therefore, of the on-coming generation, as well as in that of the soldier himself, it is imperative that measures should be adopted to deal with the problem on a large and practical scale. Of late years we have been accustomed to deal in millions, and the fact must be faced that only by further expenditure of millions can proper provision be made to restore working capacity to the men to whom we owe so much, and at the same time to protect their families from the risks to which we have referred. The machinery at present available for attaining these ends is working smoothly, by way of tuberculosis dispensaries and sanatoriums, and the annual reports emanating from them all tell of a certain measure of success, but it is only a temporary success, and by far the larger proportion of the patients who have derived benefit are perforce allowed to return to home conditions which tend to retard rather than to aid their further progress.

It has to be admitted that the methods hitherto adopted to check the fatality and the spread of tuberculosis are incomplete, and that a far more vigorous, if costly, means must be employed if success is to be obtained. Expert opinion, guided by the results of many years of observation, is now hardening in a definite direction. The futility of short periods of treatment has been fully demonstrated, but prolonged treatment opens up many economic questions which must be boldly dealt with on a broad basis.

The colony system, already introduced in a few parts of the country and notably in Cambridgeshire, appears to offer the best solution of the problem, and already it has received the cordial approval of those best qualified to judge of its merits and possibilities. To start such colonies, however, two things are necessary—money, and plenty of it, to meet the initial cost of establishment, and, secondly, the sympathetic co-operation of the authorities controlling insurance and pension funds. The hard and fast rules that determine a pension strictly in accordance with present disability, and that withdraw sickness benefit directly the insured man is able to do a little work, must be recast in the case of the sufferer from tuberculosis. The same rule that applies to a man with a damaged hand cannot reasonably be made to apply to the man with a damaged lung. In the one case recovery, once established, remains permanent, but in the other the liability to relapse is ever present for the first few years, at any rate, and during those years there may be a fair amount of capacity for work, but not sufficient to earn the living wage. It is universally recognized that the consumptive is far more likely to overcome his disease if his mind is at ease and his hands are employed. Hence it is essential that he should be free of financial cares, such as would be entailed if his pension were liable to withdrawal when he undertook light work.

Colonies for the control of tuberculosis can be made to be self-supporting if established on sufficiently broad lines. Not only can all ordinary food supplies be met by farming operations, but a vast number of industrial occupations can be carried on in suitable buildings, erected by home labour, which should in time render the workers independent of outside help. But until they are so independent it is imperative that their pensions and allowances should be graduated in accordance with their earning capacity.

The whole subject of the discharged consumptive soldier in relation to tuberculosis colonies has been well dealt with in a small book* by the Clerk to the Brighton Insurance Committee, in which the ways and means, and also the obstacles and difficulties, are carefully examined. It has already been demonstrated that such a colony can be established and maintained on a comparatively small scale by the experience recorded by Dr. Varrier-Jones of Cambridge. The expansion of the same system should not present much difficulty apart from financial considerations. The main obstacle to be overcome is a personal one. The returned soldier not unnaturally wishes to remain in touch with his family. The only way to meet this difficulty is the radical one of providing for the family within the boundaries of the colony in such a manner as to allow of association of the consumptive parent with his children under strictly hygienic conditions. Such a plan would be of far-reaching effect in the case of the advanced consumptive and would admit of the segregation which is on all hands recognized as desirable, although never carried out in practice. Payment of pensions or allowances to such cases might be made dependent upon strict adherence to rules, but no hardship need be involved in maintaining such an amount of supervision as would suffice to protect their families.

THE BOARD OF CONTROL ON EARLY TREATMENT OF MENTAL DISORDER.

The report of the Board of Control on lunacy and mental deficiency for the year 1917 contains in an introductory section some important observations on the existing lack of facilities for the adequate treatment of persons suffering from mental disease, using

* *The Discharged Consumptive Soldier: His Treatment in Relation to the Treatment of Consumption as a Whole.* By Thomas Denman, Clerk to the Brighton Insurance Committee, with a Foreword by H. de C. Woodcock, M.D., Principal of the Central Dispensary for Tuberculosis and Diseases of the Chest, Leeds. London: J. Bale, Sons, and Danielsson, Ltd. (Pp. 46. 1s.)

that term in a broad sense, and on certain defects in the existing provisions of the law to which the absence of such facilities is largely due. The Board has to recognize that there is a public prejudice against the stigma of certification; the feeling has, indeed, been so strong that it has been necessary, in conjunction with the War Office, to make special arrangements to meet the pronounced opposition both in and out of Parliament to the certification of soldiers who, during the war, suffered from mental breakdown, ranging from the milder to pronounced forms of insanity. Since the outbreak of the war the Board of Control has lent to the Army Council sixteen institutions under its supervision containing 23,500 beds, as hospital accommodation for sick and wounded soldiers; over 2,000 of these beds have been set aside for men suffering from mental breakdown who, whilst being retained in the service, can be cared for and treated without certification. Further, the Board has, in conjunction with the Ministry of Pensions, framed a scheme which will ensure that soldiers and sailors who after serving in the war are eventually discharged from the service and certified under the lunacy laws, shall be certified as private and not as pauper patients.

The Board admits that the public prejudice against certification has ever been a hindrance to the early treatment of mental disease, with the result that in all asylums there are numbers of persons suffering from incurable insanity who, had they been subjected to expert advice and treatment when the premonitory symptoms manifested themselves, would not improbably have recovered and become useful members of the community.

In some general comments on the existing defects in the treatment of cases of mental disorder, incipient in character or of recent origin, the report points out that among rich and poor alike the difficulty experienced in recognizing and treating in their early stages indications of mental disorder arises partly from public ignorance and partly from the reluctance to admit symptoms pointing to mental affection, owing to the dread that the subject may be labelled a mental case, with the possibility of certification. Much time, it is pointed out, is lost or wasted on merely palliative measures during which the patients may struggle to carry on their normal occupations. Eventually many of them become permanent nervous invalids, and others are sent to asylums only when it is too late to derive any benefit from the remedial measures provided, which at an early stage might have been completely successful. This delay, it is suggested, might in many instances have been avoided had inducements and facilities been held out for seeking an early diagnosis of the nature and character of the disease under skilled advice, and had provision been made for treatment apart from the existing provisions of the lunacy laws.

The Board of Control thus lends the weight of its great authority to the general view expressed in the article published in our columns on September 21st last, p. 322. The Board goes on to make the very serious statement that a further result of the stigma attaching to certified insanity is that many medical practitioners, and even some specialists, not infrequently classify patients of the more well-to-do classes suffering from early but undoubted insanity as merely cases of neurasthenia, or even consent under pressure from the friends to the concealment of the disease. Other points emphasized by the Board in this connexion are "that general hospitals view such cases as wholly apart from ordinary physical ailments and do not make other than a most meagre provision for their treatment, and then only in their out-patient department; that sufficient attention is not given in the curriculum of the medical schools to this important branch of medical science, study and research in which are practically confined to advanced cases which have already fallen under asylum care; and that no special qualification is at present insisted upon as necessary for appointments to the higher medical posts in public institutions for the insane; whereas medical officers of health under the Local Government Act, 1888, are required to hold a special qualification."

The Board makes certain recommendations for the amendment of the law. The first is that there should be provision to enable cases of mental disorder, incipient in character or of recent origin, to receive treatment in general or special hospitals, mental institutions, nursing homes, or elsewhere, for limited periods—say six months—without the necessity for certification under the lunacy laws, provided that the treatment is conducted under the supervision of the Board. It also encourages the establishment of sections for both in-patients and out-patients at general hospitals for the early diagnosis and treatment of incipient cases, and advises that where the hospital is attached to a medical school organized study and research should be conducted. The third recommendation is that the principle of voluntary admission, which now obtains with respect to private asylums, should be extended to public asylums and single care. It is said further that the Board should have power to make grants to after-care associations, and that the holders of the higher medical posts on the staffs of institutions for the insane should be required to possess a diploma in mental diseases obtained after a recognized course of study in the subject.

THE CONTROL OF VENEREAL DISEASE.

THE incidence of venereal diseases in the British armies at the present time is lower than in the adult civil population. The rate is 2 per cent. in the armies and is estimated to be many times higher in the adult civil population. This disparity, which corresponds with recent experience in America as noted last week (p. 584), is attributed to the effect of instruction, treatment and discipline in the army, and is a tribute to the efficiency of the measures taken and to the good sense of the men. The National Council for Combating Venereal Diseases, however, has done well to point out that though the rate in the army is low, the total number of infected soldiers is large; it is estimated to be something between two and three hundred thousand. With demobilization the restraining influence of discipline will cease, and the returned men will not find the same facilities for treatment which were always easily available to them in the army, and to which they were required to submit themselves for as long as was deemed necessary on medical grounds. It seems imperative, therefore, to increase the facilities for treatment in this country and to multiply the number of venereal clinics open to men who have resumed their civilian status. The matter is, we believe, receiving the attention of the President of the Local Government Board. The importance of taking every proper available means to check the spread of venereal diseases, and of inducing those who have contracted either of them to submit to treatment for as long as may be necessary, is recognized by every medical man and woman. In addressing Sir Auckland Geddes we shall without doubt find that we preach to the converted, for as a member of our profession he knows as well as any one how large a part of the chronic disabling diseases of early adult life and maturity is due to syphilis, and, in women especially, to gonorrhoea. Great progress in the

treatment of syphilis and to only a less extent of gonorrhœa has been made during the last decade, but the education of the medical students even of to-day is very defective in this respect. It is most important that every person infected with syphilis should be able to obtain efficient treatment by modern methods. There is no mystery about the injection of salvarsan or any of the alternative organic arsenic preparations, but those who have most experience in their use are most impressed by the need of minute care to avoid the risks which undoubtedly attend their administration; they, too, are most insistent in asserting that no one should undertake this treatment without the training which watching the operation and assisting in its performance can alone give. If, as we conceive to be essential in the circumstances of the present time, the number of venereal clinics should be so increased that one is put within the reach of the inhabitants of all large towns and industrial districts, it follows that the director of each clinic should have had previous experience. A corollary seems to be that medical officers who have had charge of venereal centres and hospitals in the army should be utilized for the new clinics so that they may be started on sound lines. The practitioners in the area should not only be asked to take their patients to the clinic, but themselves to study the methods in use and to share in the work, so that they may have no hesitation in applying these methods afterwards in private practice. When the clinic has been got going a rota could be formed of practitioners willing to attend the clinic as part-time officers at adequate remuneration. In plenty of districts there would be difficulty in carrying out any such scheme as this, but the country practitioner is a man of so much resource that we are sanguine that he will somehow make time to visit the clinic and gain experience in the treatment followed there.

UNIVERSITY REPRESENTATION IN GREAT BRITAIN.

It would appear, as matters stand at the time we go to press, that there will be contests in all the university constituencies in Great Britain. At Oxford the sitting members, Mr. R. E. Prothero, President of the Board of Agriculture, and Lord Hugh Cecil are standing again, and there is also a Labour candidate, Mr. H. S. Furniss. At Cambridge Mr. Rawlinson, K.C., and Sir Joseph Larmor, F.R.S., Professor of Mathematics, the sitting members, are candidates again, and Mr. W. C. D. Whetham is also standing as a Labour candidate. In the combined universities of Durham, Liverpool, Manchester, Leeds, Sheffield, Birmingham, and Bristol, to which the new franchise act gave two members, there are four candidates —Mr. H. A. L. Fisher, President of the Board of Education; Sir Martin Conway (U.), who combines literature with climbing the Himalayas; Mr. H. G. Williams (U.), and Mr. J. A. Hobson, who is described as an Independent. For the three seats of the four combined Scottish universities there are six candidates — Sir Henry Craik and Sir Watson Cheyne, the sitting members, are again candidates, as well as Drs. P. Macdonald and Mr. T. M. Watson of the Labour party, Mr. D. M. Cowen, of the Council of Teachers, and Professor W. R. Smith. In all these universities election will take place by the system of proportional representation, known as the single transferable vote. Taking the case of the Scottish universities, the voting paper will contain the names of the six candidates, with space for the voter to indicate the order of his preference of the candidates by numerals; he may thus arrange all the candidates in order from one to six, or he may stop short where he likes. The meaning of the term "transferable vote" is, that it may be given so as to indicate the voter's preference for the candidates in order; and is capable of being transferred to the next choice when the vote is not required to give a prior choice the necessary quota of votes, or when, owing to the deficiency in the number of the votes given for a prior choice, that choice is eliminated from the list of candidates. In the University of Wales the contest would seem to be directly between Mr. Herbert Lewis (Coal. Lab.) and Professor Joseph Jones, who is standing as a member of the Labour party. In the University of London there are four candidates for the single seat—Sir Philip Magnus (Coal. U.), Mr. Sidney Webb (Labour), Mr. A. A. Somerville (Teachers), and Major-General Sir Wilmot Herringham, physician to St. Bartholomew's Hospital and consulting physician to the forces in France, who declines to label himself as of any party, considering that we must start afresh if we are to do any good; but he will support the present Government in its efforts to complete the war. Sir Philip Magnus, who is adopted as the official candidate of the Coalition, has behind him a record of valuable work during the thirteen years for which he has represented the University. He has always shown himself very much alive to the needs of the medical profession, and has been frequently in communication with the British Medical Association, whose views he has often expressed with great effect in the House of Commons. Sir Wilmot Herringham, on the other hand, is a distinguished and experienced member of our own profession, and we conceive that many medical electors, remembering this, and remembering also Sir Philip Magnus's past services, will have some difficulty in deciding how to vote. As the transferable vote does not apply, we could wish that these two candidates might come to some understanding as to the present and the future.

THE MEDICAL INSURANCE AGENCY.

A MEETING of the committee of the Medical Insurance Agency was held at 429, Strand, on Thursday, November 21st, under the chairmanship of Dr. G. E. Haslip. The financial position was found to be quite favourable, the prosperity of the agency having been well maintained in the last year of the war, while promises of future development are sound. The committee decided, having regard to the funds at its disposal, its commitments on the one hand and impending receipts on the other, that a further distribution of £500 should be made to medical charities. This is the same sum, it will be remembered, as was dealt with in the interim distribution in May of this year, the result being that the Medical Insurance Agency has been able in the fourth year of the war to give £1,000 in aid of medical charities while continuing rebates of a highly satisfactory nature to its clients. The second £500 was allocated as follows: Royal Medical Benevolent Fund, £100; Royal Medical Benevolent Fund Guild, £100; Epsom College Benevolent Fund, £100; Royal St. Anne's School, £100; War Emergency Fund, £50; Birmingham Medical Benevolent Society, £25; and the Royal Medical Benevolent Fund Society of Ireland, £25. As a result of this distribution the total of sums allocated to medical charities has reached £4,405. In the course of the meeting the chairman stated the position that had arisen between two medical charities—the Royal Medical Benevolent Fund and Epsom College—in regard to difficulties arising over testamentary benefactions. When the exact destination of bequests by will has been made doubtful between these two bodies by the wording of the testator's wishes, legal trouble has arisen and expense has been incurred for legal costs. All money so spent was a dead loss to one or other or both parties. On the suggestion of the Medical Insurance Agency a joint committee has now been formed comprising three representatives of each party, and it may confidently be hoped that the deliberations of this committee will lead to satisfactory arrangements. The chairman reported to the committee with great regret the death of one of their members, Mr. Betham Robinson, surgeon to St. Thomas's Hospital, and the acting secretary of the agency was asked to express to Mr. Robinson's relatives their sympathy and the real sense of loss felt by the committee.

PUBLIC HEALTH IN BAGHDAD.

PUBLIC health administration in Baghdad has been organized on a comprehensive footing. The city, which has an estimated population of 165,000, apart from the military population, is said to be, from a sanitary point of view, somewhere between eastern and western standards. The most promising feature of the situation is that the sanitary measures that are being applied are appreciated by the inhabitants, though the great variety of nationalities, including Mohammedans, Jews, Armenians, and Chaldeans, with a very cosmopolitan sprinkling, gives rise to difficulties not always encountered in the administration of eastern cities. Dr. T. Barrett Heggs, M.O.H. North-East Kent United Districts, is the medical officer of health of Baghdad; at the outbreak of war he was captain of a Territorial battalion (the Buffs, East Kent Regiment), and was serving with that battalion as a major in Mesopotamia when, in July, 1917, he was transferred to the R.A.M.C. Shortly afterwards he was appointed sanitary officer of a division, and in August, 1918, became M.O.H. Baghdad. The city is still under martial law, and the M.O.H. is one of the staff of the military governor. A British sanitary section, under Captain A. E. Bonham, R.A.M.C., who has been sanitary officer of the city for over a year, constitutes the nucleus of the city's sanitary personnel. There is also a plague officer for the area, and a medical officer for the isolation hospital. The medical officer of health has charge of the medical administration of the port of Baghdad, and his duties include the registration of births and deaths, the control of vaccination, and the supervision of pharmacists, midwives, and schools.

RECENT EXPERIENCE OF INFLUENZA.

THE new ideas contained in the article on influenza in the December number of the *Medical Supplement*,[1] issued by the Medical Research Committee—for an advance copy of which we are indebted to the secretary—are not numerous. Orticoni, Barbie, and Leclerc, in a note on the microbial flora of influenza, state that in addition to the usual micro-organisms of acute respiratory affections, such as pneumococci, streptococci, and pneumobacilli, they were able to isolate Pfeiffer's bacillus from the blood and pleural fluid of a certain number of patients suffering from influenza. It was chiefly towards the end of the disease and in the severest cases that Pfeiffer's bacillus was found, and almost always in association with other micro-organisms. Further investigations are needed to determine whether it plays the principal part or is only of secondary importance in the etiology of influenza. Morelli, writing of his experience of the disease in the Italian army, states that the sick rate in some divisions was as high as 90 per cent. The disease first appeared towards the end of April and increased until it reached its height at the end of May and beginning of June. In July it almost disappeared. The first attacks were so mild that the men were able to keep on duty, but subsequent cases had to take to bed owing to the severity of the symptoms. Florand notes the same tendency in France; the first cases were mild, but the later much graver, especially as regards pulmonary, pleural, and cardiac manifestations. Morelli notes that evidence of the involvement of the nervous system was afforded by headache, convulsions, and fainting, and in two cases by nuchal rigidity and Kernig's sign. The most characteristic feature of the disease was an exanthem, which was present in almost all the cases at an early stage. It was polymorphous, sometimes assuming a diffuse erythematous form, varying from a bright red to a pale pink, localized on the face, trunk, and upper limbs, but hardly ever on the hands and rarely on the lower limbs. In some cases it closely resembled measles, but was not followed by desquamation. In other cases it assumed the form of urticaria or erythema nodosum or had the distribution of a prodromal rash of smallpox (axillae, hypochondria, and groins). An exanthem was present in all cases, and consisted of an erythema involving the soft palate, uvula, and pillars of the fauces. During a discussion at the Spanish Royal Academy of Medicine Sanz stated that in 17 out of 120 cases not only was fever absent, but there was persistent subnormal temperature. He had observed three varieties of nervous complications: one was meningeal and in two cases of this type the tension of the cerebro-spinal fluid was found on lumbar puncture to be four times higher than the normal. In the second type the principal symptoms were neuralgic, especially sciatic or trigeminal. The third type presented a psychical syndrome, with mental confusion and melancholia. According to Häberlin, the Swiss army has suffered severely, even where the accommodation for troops was good. Isolated cases occurred in June, and the epidemic broke out with great violence in the middle of July. Many severe and fatal cases were observed both in the army and in the civil population. Young persons were much more frequently attacked than the older generation which had gained immunity from the 1889–90 epidemic. In not a few cases the infection ran a fulminating course, proving fatal in one or two days, with all the signs of septicaemia. Many cases which at first seemed mild suddenly developed bronchopneumonia just after convalescence had set in. In some military units three quarters of the effectives fell sick. The number of fatal cases in the army was about 500. Medical men formed a relatively high percentage of the victims, especially young doctors attached to hospitals or in the army. No further information is supplied as to vaccines, but we note[2] that in Massachusetts a special committee has reported in favour of an influenza vaccine, which we presume to be polyvalent, for prophylactic use, and has advised that the State should encourage the distribution of influenza vaccine for this purpose, provided that means are taken to secure scientific evidence of its value. It is stated, however, that no vaccine has been proved to produce any therapeutic effect.

[1] H.M. Stationery Office. To be obtained through any bookseller. 1s. net.

THE LATE DR. J. MICHELL CLARKE.

THE proposal to provide a permanent memorial to the late Dr. John Michell Clarke at Bristol has now taken definite shape. Dr. Michell Clarke worked for some thirty years at the Bristol General Hospital as physician, investigator, and teacher. He was pro-vice-chancellor of the University and joint professor of medicine, having reached that position through the chairs of practical physiology and pathology. He turned particular attention to neurology, and many of his writings constitute permanent additions to that science. Dr. Clarke was a native of Bristol, and all his work was done there; it is therefore appropriate that the memorial fund proposed to be collected should be applied to the assistance of the medical library in Bristol, now controlled by the University of Bristol and the Bristol Medico-Chirurgical Society. The fund will be administered by those two bodies, along with the honorary staffs of the Royal Infirmary and the General Hospital. Dr. Michell Clarke had many friends in the profession, and among the members of the Appeal Committee are Dr. Norman Moore, President of the Royal College of Physicians of London, Sir Clifford Allbutt, Regius Professor of Physic in the University of Cambridge, Sir William Osler, Regius Professor of Medicine in the University of Oxford, and Sir Isambard Owen, Vice-Chancellor, and Colonel J. Swain, C.B., joint Professor of Surgery in the University of Bristol. The wide esteem felt for the late Dr. Michell Clarke is shown further by the fact that among the members of the Appeal Committee are the Lord Mayor, the Sheriff, and the Bishop of Bristol, the pro-chancellors of the University of Bristol (the Right Hon. Henry Hobhouse and Mr.

[2] *Journal Amer. Med. Association*, October 19th, 1918.

G. A. Wills), and the Head Master of Clifton College. A number of subscriptions have already been promised, but it is desired to raise a sum of at least £2,500. Subscriptions may be sent to Mr. James Rafter, M.A., Registrar of the University, and cheques should be crossed "Michell Clarke Memorial Fund." Dr. Michell Clarke was an active member of the British Medical Association; he was for many years honorary secretary of the Bath and Bristol Branch, and afterwards its president.

TREATMENT OF ANTHRAX BY NORMAL OX SERUM.

The treatment of anthrax by the intravenous injection of ox serum was originated by R. Kraus of Buenos Aires, formerly of Vienna, who considered that hypodermic and intravenous injections gave equally good results, but Hyman and Leary,[1] who report a case successfully treated by four doses of 80 c.cm. and three intramuscular injections of 100 c.cm. each, state that intravenous injection has a much more intense effect. The serum is heated for half an hour to 56° C. Penna, Cuenca, and Kraus reported 140 cases of anthrax thus treated, with one death. This is compared with Sclavo's mortality of 6 per cent. among 164 cases treated with his immune serum reported in 1903. The authors conclude that Sclavo's immune serum owes its efficacy in small part to specific immune bodies and in the main to a non-specific protein reaction which can equally be obtained by the injection of any other protein, and that for these purposes perhaps the least objectionable is heated normal ox serum, which has the advantage over normal horse serum that it does not produce serum sickness.

THE COVENTRY CASE.

The Council of the British Medical Association, at a special meeting on November 26th, reconsidered its original decision to appeal against the judgement delivered by Mr. Justice McCardie in the Coventry case, and decided not to enter an appeal. A statement of the reasons for taking this course will be made at an early date. The Council has appointed a Special Committee to consider the position which has arisen and to report thereon to the Council.

MEDICAL CANDIDATES FOR PARLIAMENT.

In the following list we give the names of all the medical men who are candidates for Parliament so far as information has reached us. The list is probably incomplete, and we shall be grateful to any correspondents who will correct or add to it. We understand that several more medical men would be willing to stand if constituencies were available. We are informed that the Medical Parliamentary Committee is endeavouring to arrange for a supply of medical speakers to assist candidates.

Basingstoke, Hants: Sir Auckland Geddes, M.D.
Bilston, Staffs: Lieut.-Colonel J. Kynaston.
Bishop Auckland, Durham: Dr. V. H. Rutherford.
Bristol, North: Dr. B. N. Blood.
Clackmannan and Eastern [Stirling]: Major W. A. Chapple.
Derby, High Peak: Dr. Clifford Brookes.
Farnworth, Lancashire: Sir Thomas Flitcroft.
Leeds, North: Major A. C. Farquharson.
Liverpool—Wavertree: Dr. Nathan Raw.
London—
Bermondsey: Dr. A. Salter.
North Paddington: Captain Donald Campbell.
Putney: Dr. H. Jackson.
Shoreditch: Dr. C. Addison.
Whitechapel and St. George's: Dr. Ambrose.
Morpeth, Northumberland: Major T. M. Allison; Captain Gerald D. Newton.
Moseley, Birmingham: Dr. R. Dunstan.
Stockport, Cheshire: Lt.-Col. F. E. Fremantle.
University of London: Major-General Sir Wilmot Herringham.
Universities of Scotland: Sir W. Watson Cheyne, Bt.; Dr. P. Macdonald; Professor W. R. Smith.
University of Dublin: Sir R. H. Woods, M.Ch.Dub., F.R.C.S.I.
University (Queen's) of Belfast: Sir William Whitla, M.D.Q.U.I.
Wallasey (Cheshire): Dr. B. V. P. McDonald.
Western Isles (Inverness, Ross, and Cromarty): Dr. Donald Murray.
Willesden: Dr. J. S. Crone.

[1] *Boston Med. and Surg. Journ.*, 1918, clxxviii, 318-323.

THE ABOLITION OF GAS WARFARE.

The cessation of hostilities brings with it the great problem of safeguards for the future. The numerous perplexing claims to be dealt with, all of them of great importance, may tend to overshadow certain aspects of the war which urgently demand recognition. Amongst these is the employment of lethal gases as a weapon of warfare. Its introduction by the Germans was a violation of the principles of morality which had hitherto exercised some guiding control over civilized warfare. It was further a violation of the spirit of the second Declaration attached to the Regulations of the Hague Convention, ratified in 1907, which states: "It renounces the use of projectiles the sole object of which is the diffusion of asphyxiating or harmful gases."

The Allies were forced in self-defence to employ the same method, but now that the need is over, fresh safeguards must be devised to prevent any nation ever again employing gas as a weapon.

The use of gas is self-condemned for the following reasons:

It is an uncontrollable weapon, whose effects cannot be limited to combatants.

It is an "unclean" weapon, condemning its victims to death by long-drawn-out torture.

It opens the door to infinite possibilities of causing suffering and death, for its further development may well lead to the devising of an agent which will blot out towns, and even nations.

As members of the medical profession, we necessarily know more than any others the suffering entailed by the use of gas. Most of us have seen its victims on the field and in hospitals at home, since the time when the first deadly wave of chlorine was let loose on our troops. We therefore feel it our duty to bring the question to the notice of the allied nations and of their representatives who will attend the Peace Conference.

Are the best efforts of science to be chiefly devoted to devising more and more potent methods of causing death by chemical agencies, instead of to the service of industry and the increase for mankind of beneficent knowledge?

Surely in the coming Comity of Nations it ought to be decided to abolish for ever such a malignant weapon. Let those to whom will be entrusted the drawing up of peace conditions have the knowledge that one such condition must be the abolition of all forms of gas warfare.

NORMAN MOORE,
President, Royal College of Physicians of London.

GEORGE H. MAKINS,
President, Royal College of Surgeons of England.

R. MCKENZIE JOHNSTON,
President, Royal College of Surgeons of Edinburgh.

A. FREELAND FERGUS,
President, Royal Faculty of Physicians and Surgeons, Glasgow.

JOSEPH O'CARROLL,
President of the Royal College of Physicians of Ireland.

JOHN B. STORY,
President, Royal College of Surgeons in Ireland.

WILLIAM OSLER,
Regius Professor of Medicine in the University of Oxford.

T. CLIFFORD ALLBUTT,
Regius Professor of Physic in the University of Cambridge

THE WAR.

INDIA AND THE WAR.

THE dispatch from Sir Charles Monro, Commander-in-Chief in India, published in the *Gazette* of November 26th, is a brief account of the work done in India, including the Native States, during the first three years of the war.

At the date of the declaration of war (August 4th, 1914) the army in India was distributed to meet hot weather conditions: the bulk of the British troops were temporarily located in the hills, a large percentage of the Indian troops were on furlough, and the usual proportion of civil and military officers were on leave out of India. Nevertheless the first convoy sailed for France on August 25th, 1914, and was followed at a few days' interval by others conveying troops not only to Europe, but also to East Africa, Egypt, and Mesopotamia. During the winter 1914–15, the British forces in India were further depleted by the dispatch to England of a number of regular units, so that at the beginning of 1915 the British garrison was largely composed of territorial troops sent to replace the regulars withdrawn. The continuing necessity to dispatch large drafts of officers and men overseas to replace wastage in the units fighting in France, Gallipoli, Egypt, Mesopotamia, East Africa, and the Cameroons, caused a very heavy strain on the Indian army, and at the same time the various expeditionary forces dependent on India continued to expand.

After a short sketch of the measures taken for recruiting and of the formation of the Indian Defence Force (which succeeded the Volunteers), the dispatch continues as follows:

> The sick and wounded dispatched to India from oversea theatres of war, as well as those invalided from Waziristan and other theatres of frontier operations, have been adequately and sympathetically cared for. A number of war hospitals have been formed, other hospitals have been expanded and improved, and ruling chiefs and others have generously provided hospitals and convalescent homes in Bombay and elsewhere in which everything possible has been done for the comfort of the sick and wounded. The satisfactory health of the troops, both in the field and in India, affords striking testimony as to the value and efficacy of these measures, and the skill, forethought, and administrative capacity of the medical services.

A compliment is paid to the Home Department, India, for its action in maintaining internal security and encouraging recruiting, and in releasing medical officers in large numbers from civil employment for service with the troops. The dispatch concludes with acknowledgements to the ruling princes and chiefs, and to the British and Indian communities, for their contributions of men, money, and material towards the prosecution of the war, and also to the Indian Branch of the Order of St. John of Jerusalem, the British Red Cross Society, the various relief funds, and the organizations formed in every province to supplement the equipment of hospitals and provide comforts for the troops, work in which ladies and gentlemen, both official and non-official, laboured with conspicuous devotion. Appended to the dispatch is a list of those whose services have been of particular value; it includes the following medical officers:

Colonels: W. E. Jennings, I.M.S., W. Molesworth, C.I.E., I.M.S., A. W. Sheen, R.A.M.C.(T.F.).

Lieut.-Colonels: J. M. Crawford, O.B.E., I.M.S., T. Jackson, I.M.S., W. G. Liston, C.I.E., I.M.S., C. F. Wanhill, R.A.M.C., J. W. Watson, I.M.S.

Majors: G. I. Davys, I.M.S., H. Hallilay, I.M.S., J. C. Kennedy, R.A.M.C., G. F. Rugg, R.A.M.C., A. E. Walter, I.M.S.

RETURNING PRISONERS.

IT appears that after the armistice had been concluded the German prison authorities turned the British prisoners loose to make the best of their way to the frontier, without clothes, food, or means of conveyance, and without any regard to the state of their health. The British Government addressed a remonstrance to the German Government, which Sir Douglas Haig transmitted by telephone on November 21st to General Haking at Spa for transmission to the German High Command. Sir Douglas Haig reported on November 22nd that steps had been taken to assist the returning prisoners.

Motor ambulance convoys and cars sent ahead of advancing British armies to carry food forward and bring back the weak to collecting centres, whence evacuations are made to base by ambulance transport. In army collecting centres released prisoners of war are bathed and re-equipped as far as possible before transfer to base reception camp, where all is provided during temporary stay of twenty-four hours awaiting evacuation to United Kingdom.

British Mission with French and American G.H.Q. taking all possible steps in collecting centres established on these fronts. British motor ambulance convoys and British officers and men to organize the centres also dispatched to French and American fronts, and ambulance transports arranged to evacuate to Calais. All cases once admitted to hospital are evacuated to England as hospital patients. All local machinery working satisfactorily.

TOTAL CASUALTIES.

NAVAL CASUALTIES.

STATISTICS of the naval losses have been issued by the Secretary of the Admiralty for the period from the outbreak of war to November 11th, 1918. They include officers and men of the Royal Navy and the Royal Naval Air Service to March 31st, 1918, and the Royal Marines, but exclude the Royal Naval Division, the losses in which were included in the figures published by the War Office. The figures include a number of officers and men of the British merchant service and fishing vessels, serving on board His Majesty's ships and auxiliaries, and other commissioned vessels. The number of dead, including those who have died from wounds and other causes, is 33,361 (officers 2,466, other ranks 30,895). The number of wounded is 5,183 (officers 805, other ranks 4,378); the number of missing is 47 (officers 15, other ranks 32). The number of interned and prisoners of war is 1,175 (officers 222, other ranks 953). The total is 39,766 (officers 3,508, other ranks 36,258). In addition, whilst pursuing their ordinary vocations, 14,661 officers and men of these classes have lost their lives through enemy action, and 3,295 have been captured and detained in enemy countries as prisoners of war. The very high proportion of dead to wounded in the navy is striking; roughly it is 30 dead to 5 wounded. In the army it is about 9 dead to 30 wounded. This was only what was foretold, for when a fighting ship is sunk by enemy action there are no, or few, survivors.

CANADIAN CASUALTIES.

From an official statement issued by Canadian Head Quarters it appears that the casualties in the Canadian Overseas Forces to November 5th were as follows: Killed, including those who have died from wounds and other causes, 50,585; wounded, 154,361; missing, including prisoners and men whose death has been assumed, 8,322.

AMERICAN CASUALTIES.

It is officially announced that the total casualties of the American Expeditionary Forces up to the signing of the armistice were: Dead, 52,169; wounded, 179,625; prisoners and missing, 3,323.

CASUALTIES IN THE MEDICAL SERVICES.

ROYAL NAVY.

Died on Service.

SURGEON LIEUTENANT J. F. HOWELLS, R.N.

Surgeon Lieutenant John Francis Howells, R.N., was reported as having died on service, in the casualty list published on November 23rd. He took the diplomas of M.R.C.S. and L.R.C.P.Lond. in 1917, after which he joined the navy as a temporary surgeon, and was recently serving at the Royal Naval Hospital, Chatham. He was the elder son of Dr. John Howells of Swansea.

SURGEON SUBLIEUTENANT J. D. GEAR, R.N.V.R.

Surgeon Sublieutenant J. D. Gear, R.N.V.R., was reported as having died on service, in the casualty list published on November 23rd.

ARMY.

Died of Wounds.

CAPTAIN J. GASTON, M.C., R.A.M.C.

Captain James Gaston, M.C., R.A.M.C., was reported as having died of wounds, in the casualty list published on November 18th. He was educated at Queen's College,

Belfast, and graduated M.B., Ch.B., and B.A.O. of the Royal University, Ireland, in 1906, after which he went into practice at Carabeg, Clough Mills, co. Antrim. He took a temporary commission as lieutenant in the R.A.M.C. on December 28th, 1914, was promoted to captain after a year's service, and received the Military Cross on November 26th, 1917. He was attached to the Suffolk Regiment (12th Foot).

Died on Service.

COLONEL S. C. PHILSON, A.M.S.

Colonel Samuel Cowell Philson, Army Medical Staff, died of pneumonia at Karachi, Sind, on November 13th, aged 58. He was born on September 14th, 1860, the son of the late Dr. W. Philson of Cheltenham, and educated at King's College Hospital, London, taking the diplomas of M.R.C.P. and the L.R.C.P.Ed. in 1883. He entered the R.A.M.C. as surgeon on May 30th, 1885, became surgeon-major on May 30th, 1897, lieutenant-colonel on May 30th, 1905, and colonel on March 1st, 1915. From February 21st, 1901, to April 16th, 1902, he was on the staff of the Governor-General of Australia. He served in the Burma campaigns of 1886–89 and 1891–92, receiving the medal, and with a general hospital during the Tirah campaign of 1897–98 on the North-West Frontier of India.

LIEUT.-COLONEL P. S. O'REILLY, C.M.G., R.A.M.C.

Lieut.-Colonel Patrick Stanislaus O'Reilly, R.A.M.C., died at Eltham on November 18th, aged 41. He was born on May 25th, 1877, educated at Dublin in the medical school of the Royal College of Surgeons in Ireland, and took the diplomas of L.R.C.P. and S.I. in 1899. Entering the R.A.M.C. as lieutenant on November 17th, 1899, he became captain on November 17th, 1902; major on August 17th, 1911; and lieut.-colonel on December 26th, 1917. He served throughout the South African war, 1899 to 1902; in the Orange River Colony, the Transvaal, and Cape Colony; took part in the actions at Paardeberg, February 17th to 26th, 1900; Poplar Grove, Driefontein, Kari Siding, Vet River and Zand River, and in those round Johannesburg and Pretoria, and received the Queen's medal with four clasps, and the King's medal with two clasps. On June 4th, 1917, he received the C.M.G.

LIEUT.-COLONEL W. M. STURROCK, R.A.M.C.(T.F.).

Lieut.-Colonel William Malcolm Sturrock, R.A.M.C. (T.F.), died at Birmingham on November 21st. He was the son of the late William Sturrock of Cupar, and was educated at Edinburgh, where he graduated M.B., C.M. in 1883. After serving as assistant medical officer at St. Pancras workhouse and infirmary he became medical officer of the Birmingham workhouse. He held a commission in the R.A.M.C.(T.F.), serving in the 1st South Midland (Birmingham) Field Ambulance, in which he became lieutenant-colonel on November 2nd, 1914, and was recently in command of the 1st Field Ambulance, 61st South Midland Division.

MAJOR G. G. ANDERSON, R.A.M.C.

Major G. G. Anderson, R.A.M.C., was reported as having died on service, in the casualty list published on November 22nd. He took a temporary commission in the R.A.M.C. as lieutenant on August 16th, 1914, and was promoted to captain after a year's service, and recently to major.

MAJOR C. IRVINE, R.A.M.C.

Major Robert Charles Irvine, R.A.M.C., died at No. 10 Red Cross Hospital in France, of pneumonia, on November 10th. He was the second son of Mr. Irvine of Clontibret, County Monaghan, and was educated at Edinburgh University, where he graduated M.B., Ch.B. in 1913. He took a temporary commission as lieutenant in the R.A.M.C. on October 17th, 1914, was promoted to captain after a year's service, and to an acting majority early in 1918. He was attached to the 63rd Field Ambulance.

MAJOR W. S. MACDONELL, C.A.M.C.

Major W. S. Macdonell, Canadian Army Medical Corps, was reported as having died on service, in the casualty list published on November 23rd.

CAPTAIN R. S. COCKE, R.A.M.C.

Captain Robert Sturgeon Cocke, R.A.M.C., died in London on November 16th, aged 44, of disease contracted on service in the East. He was educated at King's College Hospital, London, and took the diplomas of M.R.C.S., L.R.C.P.Lond. in 1900, and the F.R.C.S.Edin. in 1906. After acting as assistant resident medical officer of St. Pancras Infirmary, and as house-surgeon and anaesthetist in the aural department at King's College Hospital, he went into special practice in London, holding the appointments of senior aural clinical assistant at King's College Hospital, surgeon to the Royal Ear Hospital, Soho, and lecturer to the Deaf and Dumb Institute, Fitzroy Square. His commission as a temporary captain in the R.A.M.C. was dated January 4th, 1915; he had served as aural surgeon, first at the Cambridge Hospital, Aldershot, and then with No. 17 General Hospital, B.E.F.

CAPTAIN H. P. CROW, R.A.M.C.(S.R.).

Captain Henry Paterson Crow, R.A.M.C.(S.R.), died of influenza at Jhansi, Central India, on November 9th. He was the son of Mr. John Crow of Biggar, late of Glasgow, and was educated at Glasgow University, where he graduated M.B., Ch.B. in 1915. He took a commission as lieutenant in the R.A.M.C. Special Reserve on April 19th, 1915, and was promoted to captain after a year's service.

CAPTAIN J. DOW, I.M.S.

Captain John Dow, Indian Medical Service, died of influenza at Shiraz, Persia, on November 5th, aged 29. He was the son of Mr. Peter Dow of Elgin, and was educated at Elgin Academy and at Aberdeen University, where he graduated M.A. in 1910, and M.B., Ch.B. in 1914. After acting as house-surgeon in Aberdeen Royal Infirmary he took a commission as lieutenant in the R.A.M.C.(T.F.) in the 2/1st Highland Casualty Clearing Station in 1915, and was nominated to the I.M.S. as lieutenant from March 13th, 1916, being promoted to captain after a year's service. He had served in India and Mesopotamia, and had been for about eighteen months at Shiraz as medical officer of the Duke of York's Own Lancers (Skinner's Horse, the old 1st Bengal Cavalry). One of his brothers, Captain D. E. Dow, Seaforth Highlanders, died of wounds in May, 1917; another, Lieutenant D. J. Dow, M.C., is serving with the Indian army.

CAPTAIN A. M. JUKES, I.M.S.

Captain Andrew Monro Jukes, I.M.S., died of neuritis and heart failure after rheumatic fever in Egypt, on October 18th, aged 36. He was born on September 24th, 1882, educated at St. Bartholomew's Hospital, and graduated M.B., B.S.Lond. in 1906, and M.D. in State Medicine in 1908, also taking the D.P.H. at Cambridge in 1908. After acting as casualty house-surgeon of Hull Royal Infirmary he entered the I.M.S. as lieutenant on January 30th, 1909, passing in first, and became captain on January 30th, 1912. Before the war he had filled the posts of medical officer in charge of the Brigade laboratory at Shillong, in Assam, and of deputy sanitary commissioner of the Presidency Circle, Bengal; and in the first year of the war served as medical officer of the 128th Pioneers, in Indian Army Expeditionary Force E. He was the only son of Dr. Andrew Jukes, Church Missionary Society (retired).

CAPTAIN M. S. K. RAO, I.M.S.

Captain Mysore Seshagiri Krishnaswami Rao, Indian Medical Service, was reported as having died on service, in the casualty list published on November 23rd. He got a temporary commission in the I.M.S. on September 16th, 1916, and was promoted to captain after a year's service.

CAPTAIN H. G. F. SPURRELL, R.A.M.C.

Captain Herbert George Flaxman Spurrell, R.A.M.C., died of pneumonia, following influenza, in No. 10 General Hospital, Alexandria, on November 8th, aged 41. He was the son of the late Herbert Spurrell of West Norwood, and was educated at the London Hospital and at Oxford, where he graduated M.A., M.B., B.Ch. in 1907, also taking the diploma in tropical medicine of the London School in 1912. For a year he was assistant professor of physiology at the University of Orleans, and subsequently lived in the wilds of West Africa and Colombia, where his passion for natural history led him to the discovery of

several new zoological species, with the result that the London Zoological Gardens has rarely been without specimens sent by him, notably in the reptile and monkey houses. For his valuable work in this connexion he was elected a Fellow of the Zoological Society. He was the author of a number of scientific monographs, and published last year a work on social evolution with the title "Modern Man and his Forerunners." He was a man of outstanding character, with a most original and versatile mind. After acting as temporary medical officer of Obuasi, South Ashanti, in 1916–17, he took a temporary commission as lieutenant in the R.A.M.C. in 1917, and was promoted to captain after a year's service.

CAPTAIN L. A. WINTER, R.A.M.C.

Captain Laurence Amos Winter, R.A.M.C., died of pneumonia after influenza, aged 50, on November 15th, in No. 20 General Hospital, in France. He was educated at St. Bartholomew's Hospital, taking the diplomas of M.R.C.S. and L.R.C.P.Lond. in 1892, and graduated M.D.Durh. in 1912. After acting as clinical assistant in the skin department at Bart's., as clinical assistant in the East London Hospital for Children, and as assistant house-surgeon of the Kent and Canterbury Hospital, he went into practice at Farnborough, but subsequently removed to Sheerness.

Wounded.

Major D. H. Russell, M.C., R.A.M.C. (temporary).
Major H. D. Smythe, R.A.M.C.(T.F.).
Captain C. N. Coad, M.C., R.A.M.C. (temporary).
Captain J. Pryce Davies, R.A.M.C. (temporary).
Captain J. J. B. Edmund, R.A.M.C.(S.R.).
Captain A. W. Raymond, M.C., R.A.M.C. (temporary).
Captain G. Robinson, R.A.M.C. (temporary).
Captain J. Scott, R.A.M.C. (temporary).
Captain S. Singh, I.M.S. (temporary).
Lieutenant W. H. Ross, R.A.M.C. (temporary).

DEATHS AMONG SONS OF MEDICAL MEN.

Clark, Theodore Preston, Lance-Corporal Royal Fusiliers (City of London Regiment, 7th Foot), reported as wounded and missing on August 19th, now presumed killed on that date, only surviving son of the late Dr. A. W. Clark of Wisbech, aged 24.

Fox-Russell, Henry Thornbury, M.C., Captain Royal Air Force, late 6th Royal Welsh Fusiliers (23rd Foot), third son of Dr. Fox Russell of Holyhead, killed in an aeroplane accident on November 18th, aged 21. His brother, Captain John Fox-Russell, V.C., R.A.M.C.(T.F.), was killed in action on November 6th, 1917, winning the V.C. at the time of his death.

Irving, Alfred, Second Lieutenant Indian army, 15th Sikhs, youngest son of Dr. M. H. C. Irving, Colonial Medical Service, killed in Mesopotamia, October 26th, aged 20.

Moore, Morgan Edward Jellett, M.C., Lieutenant Royal Irish Rifles, only son of Dr. E. E. Moore, Asylum House, Letterkenny, reported missing March 24th, 1918, now reported to have died of wounds in a German field hospital at Flavy le Martel on March 27th, aged 24. He was educated at Glenalmond, and entered King's College, Cambridge, in 1913, but left to take a commission in the 13th Battalion Royal Irish Rifles (Ulster Division) in the autumn of 1914. He received the Military Cross for gallantry at Thiepval Wood, and was twice wounded in the battle of the Somme in 1916. He returned to France, with a commission in the regular army, in the 2nd Irish Rifles, and served in Flanders in the heavy fighting at Ypres and Westhoeke in August, 1917, and at the battle of Cambrai in November, 1917.

Webster, John, M.C., Lieutenant 14th Squadron Royal Air Force, only son of Dr. J. A. Webster, late of Launceston and Sorell, Tasmania, killed in Palestine September 21st.

Woollett, J. C., Captain Royal Air Force, son of Dr. Woollett of Streatham, died of pneumonia at Hythe on November 16th.

MEDICAL STUDENT.

Henry, John A. G., Second Lieutenant R.A.F., killed in aërial combat September 28th, aged 19, was the youngest son of Councillor Stephen J. Henry, J.P., Glasgow, and a medical student of Glasgow University, 1916-17. He was a member of the Glasgow University O.T.C., obtained his commission in the R.F.C. in January, 1918, and went to France August 17th, 1918. His brother, Captain F. J. Henry, M.C., R.A.M.C., is still on service, while another brother, Dr. Stephen J. Henry, after two years' service in France, resigned his commission on account of ill health.

[We shall be indebted to relatives of those who are killed in action or die in the war for information which will enable us to make these notes as complete and accurate as possible.]

HONOURS.

FOREIGN DECORATIONS.

A SPECIAL Supplement to the *London Gazette*, dated November 22nd, contains a further list of decorations conferred by the President of the French Republic for distinguished services rendered during the course of the campaign. The Croix de Guerre has been awarded to the following officers of the R.A.M.C.:

Lieut.-Colonel (temporary Colonel) Fitzgerald G. Fitzgerald, D.S.O.

Major James S. Y. Rogers, D.S.O. (attached Royal Highlanders).

Captains (acting Lieut.-Colonels): Edgar Percival, D.S.O., M.C., Frank Worthington, D.S.O.

Captains (acting Majors): Richard P. Ballard, M.C. (S.R.), Daniel Dougal, M.C. (S.R.).

Temporary Captain (acting Lieut.-Colonel) Robert Svensson, M.C.

Temporary Captains (acting Majors): Philip Carney, M.C., James A. Doull.

Temporary Captains: Lawrence Gameson, James F. McLay, Stanley A. W. Munro, Denis J. Stokes.

Lieutenant William A. Fraser (S.R.).

The Croix de Guerre has also been conferred upon thirteen warrant officers and privates of the R.A.M.C.

England and Wales.

LIVERPOOL MEDICAL INSTITUTION.

AT an ordinary meeting on November 21st, the President, Mr. W. Thelwall Thomas, in the chair, proposed on behalf of the council, the foundation of an oration in memory of the late Hugh Owen Thomas. Mr. Thomas alluded briefly to the career and life-work of Liverpool's most distinguished surgeon. His surgical genius had been more fully recognized during the past four years by the medical world than ever before. The time was ripe for some movement which would perpetuate the memory of this great surgeon. The members present adopted the proposal by acclamation, and decided that a bust in marble should be placed in the hall of the institution. A subcommittee of the council was approved, to which Dr. R. Caton was co-opted, to undertake the necessary steps. It is felt that surgeons from all parts of the world would like to participate in such a laudable object, and the subcommittee will bring the proposal to their notice in due course. Dr. Charles J. Macalister read a paper setting forth some interesting observations on allantoin. He showed by lantern slides the stimulating action of allantoin on bulbs and the enhanced production of inflorescence. Its action as a stimulant of cell proliferation in wounds and its sanative effect in the process of healing were illustrated by short cases. Sir Dyce Duckworth, Bt., gave an interesting and suggestive address on therapeutic subjects with notes on some well approved old remedies. Mercurial and arsenical preparations were touched upon. Warburg's tincture, tincture of musk, and turpentine among many others were mentioned as remedies most useful, and not necessarily to be discarded in favour of newer ones. The experience of the fathers of medicine was not lightly to be brushed aside because their knowledge of etiology was imperfect, or even wanting. Many of their clinical observations still held good, and the medicaments they employed were still as efficacious as ever when their use was based on clinical observations. There was a danger of these being swamped by pathological theories ill sustained by facts.

READING PATHOLOGICAL SOCIETY.

At the 800th meeting of the Reading Pathological Society on November 21st the following resolution was proposed by the president and carried unanimously:

That the Reading Pathological Society desires to place on record its thankfulness to Almighty God for the victory that has been vouchsafed to the Allies; to His Majesty the King for the splendid services he has rendered during the war; and to our soldiers, sailors, and airmen for their courage and fortitude which have safeguarded our shores and preserved our empire.

PUBLICITY ARRANGEMENTS AS TO VENEREAL DISEASES.

The London County Council, on the recommendation of the Public Health Committee, has agreed to assist the National Council for Combating Venereal Diseases by subsidizing that part of the propaganda which takes the form of press advertisements. It was stated that the National Council was in a position to advertise in nearly 100 papers circulating in London and adjacent areas at a

total cost of £2,000. The net cost to the London County Council, after allowing for the Government grant of 75 per cent. in respect to the total expenditure, would probably not exceed £350. The Finance Committee, in supporting the recommendation, said that the venereal diseases scheme had matured during the war, and therefore the limitations applied to other branches of the Council's activities might be relaxed in this instance. The cost is to be apportioned as between the Council and neighbouring authorities on the basis of relative populations. All the authorities participating with the Council in the joint arrangements for the provision of facilities, except the Essex, Hertfordshire, and Surrey County Councils, have agreed to contribute to this publicity campaign.

Central Midwives Board.

A special meeting of the Board was held on November 21st, Sir Francis Champneys presiding. Six final reports, five interim reports, and six fresh cases were considered. Out of these, seven midwives were struck off the roll on charges of negligence in cases of ophthalmia neonatorum, puerperal fever, and torn perineum, and for general breaches of the rules. Judgement was postponed in one case. The application of a midwife to have her name restored to the roll was granted. The Board held its ordinary meeting on the same day. In reply to a letter from the Local Government Board it was decided to state that the Central Midwives Board, having considered the question of framing a new Rule E.22 (1) (*f*) in terms similar to the corresponding rule of the Central Midwives Board for Scotland, is prepared to submit such a rule for the approval of the Privy Council. Fourteen midwives were removed from the roll on their own applications on account of old age, ill health, and inability to comply with the rules.

Ireland.

Dispensary Doctors' Salaries.

The Ballymena Guardians have held a special meeting to consider an application from the eight dispensary medical officers in the Ballymena Union for a graded scale of salaries. The application stated that the Irish Medical Committee, the central body which represented and controlled the profession in Ireland, had recently considered the question of the salaries paid to Poor Law medical officers, and had fixed a minimum scale applicable to the whole of Ireland, namely, in dispensary districts an initial salary of £200 per annum, increasing to a maximum of £300 after fifteen years' service, with retrospective application in the case of existing officers. A further letter was received from Dr. J. Armstrong, Secretary of the County Antrim Medical Committee, stating that at a meeting of the Committee in Ballymena it was unanimously decided that steps should be taken immediately and simultaneously in all the unions in the county to have a graded scale of salaries for Poor Law medical officers in accordance with the decision arrived at by the meeting of delegates of the profession in Dublin. A motion to adjourn the consideration of the question for three months was carried. At a recent meeting of the Kilkenny Board of Guardians the following scale was approved by 24 votes to 8: "That the initial salary be £180 per annum, to be increased by £10 every three years until it reaches the maximum of £250, and to be retrospectively applied." The Roscrea (co. Tipperary) Board of Guardians recently approved graded scales with the maximum of £250 a year for the larger dispensary districts of the union.

Marriage, Birth, and Death Rates.

From the fifty-fourth annual report of the Registrar-General of Marriages, Births, and Deaths in Ireland for the year 1917 it appears that the marriage-rate (4.86 marriages per 1,000 of the population) for the year 1917 is the lowest recorded for Ireland since 1900, being 0.27 per 1,000 under the low rate for 1916 and 0.38 under the average for the ten years 1907–16. The rate (19.9 per 1,000) represented by the births registered during the year was the lowest on record. It was 1.2 under the rate for 1916 and 2.9 under the average for the decennium 1907–16. The total number of births (86,370) registered in 1917 was 5,067 under the number for the preceding year, 12,436 under that for 1914, and 15,286 (or 15 per cent.) below the average for the ten years 1905–14. The death-rate from all causes in 1917 was 16.8 per 1,000 of the population, or 0.3 above that for the preceding year, but 0.2 per 1,000 under the average for the ten years 1907–16. The mortality from all forms of tuberculosis during the year was equivalent to 2.23 per 1,000 of the population, being 0.08 per 1,000 above that for 1916, but 0.05 under the average for the ten years 1907–16. Deaths from all forms of tuberculosis disease registered in Ireland during the year 1917 numbered 9,680, being equivalent to 2.23 per 1,000 of the estimated population. The infant mortality-rate (deaths of infants under 1 year of age per 1,000 births registered) for the year 1917 was 88 as compared with 83 in 1916 and an average of 92 for the ten years 1907–16.

Correspondence.

MEDICAL REPRESENTATION IN PARLIAMENT.

Sir,—I have read with interest the extracts from the *Lancet* on medical representation in Parliament which you published last week. With a bill for the institution of a Ministry of Health on the tapis, and coming forward early in the next Parliament, it is extremely important that there should be as much medical representation in the House of Commons as possible. Not only a bill for a Ministry of Health, but many other subjects most intimately affecting the profession, are sure to come to the front during the process of reconstruction. It is extremely difficult for a layman quickly to appreciate points which to a medical practitioner are as clear as daylight. I have a very distinct recollection of my attempts to coach a gentleman, distinctly in intellect above the average of the ordinary M.P., on a question of great medical importance, and the horror with which I heard the failure of those attempts.

To attain this representation it appears to me that it is essential that the whole profession should work in unison. I am afraid that so far as this present election is concerned very little more can be done than to assist the candidature of some few of the doctors who are standing, either by money or in other ways which may become apparent after the nomination day. But it is by no means sure that the new Parliament will be very long-lived, and therefore it behoves us to keep our armour bright so that we may take our proper part in the following election, which may not be far off.

The Council of the British Medical Association has, rightly or wrongly (for my part, I consider unwisely), determined in this matter that the Association should act on "its lonesome," but I hope that this decision may not preclude amicable relations, and conferences, if necessary, with any other committee or body having the same objects in view. A doctor must, of course, be elected to Parliament as a citizen, subscribing to the tenets of one of the various parties into which that House will be divided, but judging from the experience I have had during the past few years in addressing a great many thousand men and women on the subject of venereal disease and other health matters, I feel sure that in any constituency where the normal party vote is fairly balanced, a doctor who, in addition to his Liberal or Conservative opinions, stood on a comprehensive and progressive health programme, would carry the vote of a very large number of the new electors, and more especially of the women. It is to be hoped therefore that the work of none of those committees which are dealing with this matter will cease immediately after the next election, but that they will be continued, and hold themselves ready to deal with any emergency which may turn up, either in the shape of an early general election or any by-election, in which it might appear that a medical candidate stood a chance of election.—I am, etc.,

London, W., Nov. 26th. E. B. Turner.

SECURITY OF TENURE OF PUBLIC HEALTH OFFICERS.

Sir,—As the time is now approaching when, I think, an application might be made to the Local Government Board for the issue of the Order referred to in the enclosed

letters, I send you the correspondence for publication.—I am, etc.,

November 23rd. PHILIP MAGNUS.

Local Government Board,
Whitehall, S.W. 1,
30th December, 1915.

My dear Magnus,

In accordance with the decision of my predecessor, which was contained in his letter to you of February last, my Department have prepared an Order giving security of tenure to whole-time medical officers of health and inspectors of nuisances in the future.

I entirely agree with the decision at which Mr. Samuel arrived and am strongly in favour of security of tenure for these officers, but I must confess that my own feeling is that the present is hardly the most appropriate time for the issue of such an Order, in view of the fact that so many of our best men have given up local work for service with the Army or Navy and that the conditions are now quite abnormal.

Perhaps you would kindly let me know what your views are, and whether in the circumstances you would see any objection to the issue of the Order being further postponed.

Yours sincerely,
(Sgd.) WALTER H. LONG.

Local Government Board,
Whitehall, S.W.1,
7th January, 1916.

My dear Magnus,

Many thanks for your letters with respect to the tenure of office of medical officers of health and inspectors of nuisances. I felt sure you would agree that there were good grounds for postponing the intended change.

I see no objection at all to your publishing our correspondence.

Yours sincerely,
(Sgd.) WALTER H. LONG.

I am very grateful to you for your most valuable and friendly co-operation.—W. H. L.

A.M.S. AND S.M.S.

SIR,—I am flattered that the scheme of State medical service that I outlined in *The Hospital* has been thought worthy of so much criticism in your columns. I fear, though, it is not correctly apprehended. I do not suggest that the army system should be applied holus bolus to the whole civil population. I only suggested that the only medical service that performed functions such as I imagine a State medical service will be called upon to perform is the Army Service, and therefore that such part of its organization as suited civil conditions might be used as a model. I have not advocated State medical service. I have only suggested a possible organization for a State medical service if the peoples of Great Britain decide they wish to have a State medical service.

The service I have outlined is a possible organization. I do not say it is the best possible, but I do say that if the nation asks for a service the medical profession should be ready with carefully considered plans, and I invited constructive criticism. If the possible organization outlined is not acceptable to the public nor to the medical profession, it is for the critics of it to suggest another. The thing to avoid is a *non possumus* attitude of the medical profession in the face of a demand by the public, for if the medical profession, instead of guiding opinion, obstructs desire, the result may be a defeat of the profession and a service sullenly served.

These are days for statesmanship. All men must pull together, and be ready to give and take. I come of one of the oldest medical families in England. I myself did three years' general practice with my father before I joined the army. Naturally I am intensely interested in the future of the medical profession, and I see great changes looming in the future. Changes must come, and it is only wise for the medical profession to prepare itself so that the new order may be acceptable to medical men and beneficial to the nation.

I should like to see other organizations than mine set forth for comparison, or alterations that will better mine suggested. I wish you had recognized that in *The Hospital* article a good deal of space was devoted to attempts to prevent stagnation and to stimulate effort and ambition, for such are the life blood of progress.—I am, etc.,

Brighton, Nov. 23rd. G. T. K. MAURICE.

SIR,—In your leader this week on a State medical service you refer to one modelled on the R.A.M.C. I have just left the army after holding a temporary commission for three years, and I can assure you that there are few of us who are not very adverse to army methods being introduced into civil life.—I am, etc.,

Hove, Nov. 24th. ALEXANDER ORLEBAR.

SIR,—I see by your leading article of the 23rd that an army medical officer is seriously urging the organization of the entire medical profession of this country on the lines of the R.A.M.C. I am glad to read, side by side with this proposal, Sir Wilmot Herringham's opinion regarding it. But there is another aspect of the matter which has not yet received sufficient attention. It is this. In the next great war is it not desirable that the mobilized medical profession shall be medically controlled by its own leaders?

Colonel Maurice evidently starts from the assumption that the regular military medical services are patterns to the profession. I wish we could agree with him, but sad experience lends no support to that assumption. The plain fact, indeed, needs stating that the great medical achievements of this war (and they have been remarkable) have been almost wholly the work of the civil profession, whilst its great medical catastrophes (and they have been terrible) lie entirely at the door of the regular military medical services.

It is clearly inadmissible to claim pre-eminent excellence for an organization responsible for such catastrophes as those of Mesopotamia and Gallipoli, and, worse still, for the retention in high command of those officially responsible for them, as well as for the waste and misapplication of the superb medical man power placed at its disposal on the outbreak of hostilities.

Sir Wilmot Herringham tells us that the system of the regular R.A.M.C. would be the worst for civil life that can well be conceived; that it prevents independence and discourages originality; that it wastes time seriously; that its officers have little opportunity of being otherwise than uniform; that it makes it difficult to get rid of the incompetent, and that it would greatly lower the standard of practice if applied generally to the civil profession. This, from one so well qualified to judge, is a grave indictment. But it agrees with the pronouncements of other careful men.

In one respect the R.A.M.C. has been under a disadvantage. The army medical reforms carried out at the instance of the civil profession in 1898 had been rendered essential by the failure of the A.M.S. to attract men of adequate ability in adequate numbers. When those officers who entered the service after 1898 are fully in charge of its administration I believe we shall see an improved state of affairs.

But, in view of the experience of this war, the country would be ill advised to take for another war the risks of such breakdowns as Mesopotamia and Gallipoli, and of similar misapplication and waste of medical man power. It will be observed that Sir Wilmot Herringham regards the evils he speaks of as inherent in the system.

Obviously a further reform is needed in the interest of the army and the medical officers, as well as of the country and of the medical profession. I have already indicated it. When the functions of the new Ministry of Health are more fully elaborated I would strongly urge that they should include the medical control of the military medical services, and ensure in time of war the administration of the mobilized profession by men of recognizedly the highest medical capacity. The mere contact with other branches of medicine which such an arrangement would bring about could not fail to be advantageous to the services. The mistaken idea cherished by some less wise R.A.M.C. officers that a military medical officer should be a soldier first and a doctor afterwards must give place to the realization that he must be first of all a "good doctor."

I am sorry to have to write otherwise than in wholehearted praise of a service which includes, besides some world-famous discoverers in tropical medicine, many gallant officers and several valued friends. But such proposals as those to which you have drawn attention appear to me so pernicious that I must put forward my opinion and recommendation in plain terms.—I am, etc.,

Exeter, Nov. 24th. W. GORDON.

THE CAPITATION FEE AND THE PANEL CONFERENCE.

Sir,—Dr. Lyth piquantly describes the debate on the capitation fee at the late conference. He might have been there. But he misses the essential point of the want of confidence in the Insurance Acts Committee which would have been shown had the Sunderland resolution been carried. The Committee had been authorized or instructed at the previous meeting to carry out a certain policy which they were in fact actively engaged in doing. Faced with a directly contrary instruction their position would have been untenable. Now, with the prospect of an early peace, the whole question can be approached *de novo* and steps taken to bring the question to an issue before entering into the contracts for 1920.

Undoubtedly we are in shoal water and drifting on to the rocks. If we think we are underpaid we must have the courage of our convictions, and decline a contract on the present terms. After all, men in other occupations bravely face infinitely greater difficulties. The weakness of Dr. Lyth's argument is that he relies on bluff. That will not do. We must be prepared for medical benefit coming to an end and the Government using every means for our defeat. It is not for us to assume that they can only do so and so; they may spring surprises on us. We shall have to be prepared to rely indefinitely if necessary on private practice. In my opinion this attitude involves very little, if any, sacrifice. If our contention as to the present capitation fee is sound we ought to be better off.

The difficulty in organizing combined action is the great inequality of reward under the present system. Density or sparseness of population, differences of occupation of the insured, salubrity or otherwise of certain districts, local customs and varying attitudes to contract practice, are all factors making for inequality of profit. Besides, there is the size of the panel itself making for inequality, the rule being the larger the panel the greater the relative profit.

I wish I were as confident as Dr. Lyth of the readiness of the men to forego their panel cheques. I hope he rightly gauges the determination to end an intolerable situation. In any case active and concentrated preparation will be necessary if we are to sustain the struggle with dignity and success. No energy or money must be dissipated in vain efforts to deceive the electorate into electing our agents. Every penny and every ounce of force will be required in the fight, honestly and above board, for just terms.—I am, etc.,

Gateshead, Nov. 24th. John L. Speirs.

THE MENINGOCOCCUS OF WEICHSELBAUM.

Sir,—Mr. Ramsbottom appears to think that I am still anxious to convince the world that the giant meningococcus is a parasitic fungus. And this notwithstanding my letter in the British Medical Journal of September 7th, which clearly showed that I have no such ambition, and that my chief desire was to demonstrate the fact that this organism is not a simple bacterium exclusively dependent on equal binary fission for reproduction. As I there stated, I only provisionally placed it amongst the Hemiascomycetes because in many respects it more closely resembles these than it does the lower bacteria, and I made it perfectly clear that I kept an open mind on the subject of its proper classification. I unreservedly confessed, moreover, that I know nothing of mycology, and fully accepted Mr. Ramsbottom's reputation as a mycologist at his own valuation. I find it difficult therefore to understand the motive for his present letter. I did, it is true, suggest that no mycologist, however eminent, should give a dogmatic opinion on the subject without first-hand study, and pointed out that much of Mr. Rambottom's criticism missed its mark for this very reason. As if to give point to this warning my critic now confesses that he has not studied the organism at first hand, and suggests that a little simple staining might enable the observer to arrive at greater certainty. Now if there is one thing certain in an uncertain world, it is that nothing has in the past retarded the study of the morphology of the lower bacteria so much as addiction to stains. After staining several hundred meningococcal films in the last four years I can testify to the truth of this in the case at least of the giant forms of meningococci.

With regard, finally, to the true position of the Hemiascomycetes, my point was not whether mycologists do or do not believe that they belong to the Phycomycetes or Ascomycetes proper. My indictment of Mr. Ramsbottom lay on very different grounds—namely, that he was not entitled, when addressing those who profess no knowledge of mycology, to present as fully proven that which has not yet been fully proven. Every one knows that the proof has been completed in many cases. But until it has been proved to be true of all the claimants restraint is wise, even when fighting an opponent who is—even on what still appears to Mr. Ramsbottom as the main issue—perhaps inclined to agree.—I am, etc.,

London, W., Nov. 22nd. Edward C. Hort.

THE CURSE OF IMMOBILIZATION.

Sir,—It is to be hoped that Mr. Dowden's article (November 23rd, p. 570) on the above subject will initiate not only the discussion it deserves, but the establishment of some means whereby the curse might be ameliorated. I have to thank him for an absolutely normal finger treated by passive congestion and "mobilization" when he was my chief fourteen years ago. The joint surfaces were visible, and pus could be seen oozing out between them. The finger is now, as I say, absolutely normal. It is not, however, my own personal experience I wish to speak of, but to bear out Mr. Dowden's contention.

For many years I have been especially interested in the injured workman, and if asked the cause of prolonged incapacity after injuries to bones and joints, I would unhesitatingly reply "immobilization." The war has transferred this from a purely industrial question to one of national importance. Our wounded soldiers receive pensions in accordance with the degree of their disabilities. There must be many thousands of such men whose original disability has passed off, and who must now receive pension for the disability resulting from immobilization of their injured limb. I am not talking at random when I say "thousands." I have had charge of over 200 beds in a war hospital. I have *x* rayed certainly hundreds of joints for other surgeons, in order to find out if the existing stiffness is due to actual ankylosis, or simply to adhesions. I am at present almost daily examining wounded soldiers who have come to the Pensions Medical Board for assessment of their disabilities. Even after seemingly trivial injuries it is fairly common to find that the disability is due to lengthy immobilization and to nothing else. No examination of an injured limb is complete until all the joints of that limb have been tested for their range of available movement.

The injured man has a diminished wage-earning capacity which he might possibly have escaped. He is prevented from enjoying the full amenities of life. His disability is disheartening to the civilian, however heartening or lucrative it may be to the bone-setter, and in addition it is costly to the tax-payer.

The "costly" curse of immobilization, if I may make the addition to Mr. Dowden's title, is one demanding immediate attention. So widespread are its after-effects that it would seem almost necessary to establish (in addition to our existing orthopaedic hospitals) centres for the breaking down of adhesions, and the overcoming of contractures.—I am, etc.,

Archibald McKendrick, F.R.C.S.Edin.

Edinburgh, Nov. 23rd.

DISCHARGED TUBERCULOUS SOLDIERS.

Sir,—I think it would be advisable for the Ministry of Pensions to devise some better method of dealing with soldiers and sailors who have been incapacitated by pulmonary tuberculosis. If they recover sufficiently to be able to work they are, under existing conditions, very unwilling to start work, because if they do their pension will be immediately cut down, and then in time taken away altogether. No one can blame them for believing that there is a considerable chance of the disease again breaking out, and as things stand at present they will then be entitled to nothing.

I would suggest that when these men are able to earn a reasonable living they should be encouraged to do so; their pensions might be cut down to 5s. a week for life. If later they break down from tuberculosis they should receive the full pension until they have recovered. A man suffering from tuberculosis of the lungs is probably in

much worse case than a man who has lost one of his feet, but who quite rightly receives a recompense for his loss.—I am, etc.,

EDWARD E. PREST.

Ayrshire Sanatorium, New Cumnock.

*** We understand that the official view is that a man's actual earnings are not taken into account in any estimate or revision of his pension; the disability alone is considered. Under an alternative scheme, however, a man who so desires may have his pension calculated on a comparison of his present earnings with what he earned before enlistment. Members of Pension Boards are directed not to ask a man's present earnings, except under the alternative scheme.

DUBLIN UNIVERSITY ELECTION.

SIR,—Now more than ever it is essential that medical men should be elected to Parliament. At the coming election a medical practitioner, Sir Robert Woods, will contest the representation of Dublin University.

It is important that those medical graduates of Trinity College, Dublin, who desire to exercise the franchise and are not already on the Register should at once send in their names to the Registrar at Trinity College with the registration fee of £1. Holders of the higher degrees—M.A., M.D., and M.Ch.—are already voters, but those who have only taken Bachelor degrees can now become entitled to vote at the forthcoming election by proceeding as above.—I am, etc.,

JAMES CRAIG,
King's Professor of Medicine.

Dublin, Nov. 26th.

BRITISH MEDICAL LITERATURE IN FOREIGN COUNTRIES.

SIR,—In your number for September 28th, page 352, I find some information, taken from the *Montpellier Médical*, as to certain methods used by German booksellers and publishers in order to introduce and propagate German medical literature in Holland.

The statement as regards the obliging ways of the Germans may perhaps be somewhat exaggerated; yet there are undeniably some points of great importance in the statement, and the medical profession in Norway can corroborate the fact, that the German business methods have done an exceedingly great deal to propagate German scientific literature, perhaps as much as the intrinsic good qualities which nobody can deny the German scientific literature.

The fact is that German books, pamphlets, and periodicals are much more easily attainable in most countries than books in any other foreign language. And this from two reasons.

First, because of the German publishers' system of sending out their publications "on approval" (sale or return terms) to booksellers in foreign countries, where the buyers can have a look at them, get an impression of their contents, their outfit, and in this way avoid ordering from abroad books which may turn out to be entirely different from what was expected and wanted. German books can from this reason regularly be inspected whenever and wherever required.

But there is another and still more ponderous reason, namely, the splendid organization and co-operation of the German publishers, particularly their catalogues comprising all German publications concerning medicine as well as all other branches of science. When one asks a bookseller in this country for information about foreign publications on some particular topic, he will present one with the latest "compendium catalogue" comprising all German books on the subject which are at present on the market, containing all the necessary information about each individual book—namely, price, number of pages and illustrations, year of last edition, etc.

As regards English or French literature, one will be lucky if able to look at one of the three-yearly (or yearly) catalogues, which the bookseller may, or may not, have. No English or French books have been put at the bookseller's disposal on "sale and return" terms, and most buyers naturally take "the line of least resistance"—they buy the German books.

Readers in all foreign countries would undoubtedly highly appreciate if a similar arrangement—a periodically issued catalogue from all British publishers, containing not only the last year's publications, but all books on the market—could be brought into life. One cannot insist too strongly that a co-operated effort of all English publishers on the lines indicated is needed in order to facilitate the access to the valuable English scientific literature.

It would be a great advantage to the scientific world abroad, and, one would think, no disadvantage to the British authors and publishers.

It is only fair to add that one firm of English publishers—the University of London Press—are taking steps to send books to Norway on "sale and return" terms, thanks to the representations that have been made to the publishers by the Secretary of the Royal Society of Medicine, and thanks to the kind interest which Sir William Osler and Dr. Monrad-Krohn have taken in the matter. Be it also mentioned that some other British publishing firms have during the last few years sent some works for reviewing in Norwegian medical periodicals.—I am, etc.,

F. G. GADE, M.D.,
Editor of *Norsk Magazin for Laegevidenskaben*.

Kristiania, Nov. 12th.

*** The paragraph to which our correspondent refers was inserted in continuation of articles published at various times since March 6th, 1915. We called the attention of several leading British publishing firms to our first article and received several interesting replies. The subject was raised first in relation to Scandinavian countries, and Mr. John Murray, dealing, in our columns on March 27th, 1915, p. 552, with the suggestion that the smallness of English trade in medical books in these countries is in a great measure due to the fact that very few copies are sent there for review, expressed the opinion that this was a case of putting the cart before the horse. "My experience," he wrote, "is that few review copies are sent to Norway and Sweden because the demand for English books is comparatively so small. . . . The Swedish booksellers want copies on 'sale or return,' and unless there is a steady and continuous demand this practice invariably spells loss for the publisher." Messrs. Macmillan expressed their interest in the suggestion, and stated that they proposed to act upon it in the future. Messrs. Longmans, Green and Co. stated that they had not overlooked the possibility of the demand for medical works in the English language in Scandinavia. As it was represented to us by other publishers that medical periodicals published in Scandinavian countries were not known to publishers in this country, we printed on April 3rd, 1915, a list of such periodicals published in Sweden, Norway, Denmark, and Finland.

If we are to accept Mr. John Murray's opinion we are in a vicious circle. English publishers do not send medical books to Scandinavia because there is no demand, while Scandinavia and Holland do not demand English books because possible buyers cannot see the books before ordering and the publishers do not co-operate to bring them to notice.

Universities and Colleges.

UNIVERSITY OF LONDON.

THE following candidates have been approved at the examinations indicated:

THIRD M.B., B.S.—*Olive Rendel (Honours), L. S. Banes, Irene Bastow, S. Batchelor, Alethea J. Bolton, P. C. Conran, Hilda M. Denton, Susan A Finch, H. L. G. Foxell, Maud Gazdar, J. C. Gie, L. B. Goldschmidt C. H. Gould, W. H. Grace, Blanche A. M. Henderson, W. B. Heywood-Waddington, R. H. Hodges, E. A. Hutton-Attenborough, Muriel E. Landau, Janet McA. McGill, M. W. H. Miles, L. M. Moody, P. G. Quinton, W. M. A. Rahman, Enid E. Sanger-Davies, S N. Sennett, J. H. Sheldon, A. L. Telling, Gladys M. R. Webster.

B.S.—T. H. Sanderson-Wells, M.D.

* Distinguished in Pathology.

The following have passed in one of the two groups of subjects:

THIRD M.B., B.S.—*Group I:* S. C. de Silva Wijeyeratne, Alice M. Griffiths, Mary I. Hounsfield, F. R. Law, Annie Lloyd, T. D. Pratt, H. B. Russell. *Group II:* C. Y. Eccles, A. W. Holgate, I. H. Lloyd, Alice L. Lloyd-Williams, Adeline M. Matland, Enid M. Pfeil, M. C. Polhill.

THE MEAGRE GOVERNMENT GRANT TO UNIVERSITIES AND COLLEGES.

THE Chancellor of the Exchequer and the President of the Board of Education received on November 23rd a deputation from the universities and institutions of university rank of Great Britain and Ireland to lay before the Government the need for further financial assistance to enable the universities to maintain the standard of their work, and to develop their activities. The deputation was introduced by Sir Donald

MacAlister, Vice-Chancellor of the University of Glasgow, and the general financial requirements of the universities were stated by Sir Oliver Lodge, Principal of the University of Birmingham; among the other speakers were Sir George Adam Smith, Principal of the University of Aberdeen, Sir Alfred Ewing, Principal of the University of Edinburgh, Sir Bertram Windle, M.D., President of University College, Cork, Professor C. M. Gillespie of the University of Leeds, Sir Alfred Dale, Vice-Chancellor of the University of Liverpool, Sir Gregory Foster, Provost of University College, London, Professor W. H. Bragg, Quain professor of physics, and Sir Bertrand Dawson, Dean of the Faculty of Medicine in the University of London. In reply, the Chancellor of the Exchequer expressed the Government's recognition of the vital importance to the nation of maintaining the efficiency of the highest form of education in the country, and promised sympathetic consideration of any recommendations that might be made to him by the President of the Board of Education. Mr. Fisher invited the universities to submit written statements, which he promised would receive careful consideration.

Obituary.

SIR PHILIP SYDNEY JONES, M.D., F.R.C.S.,

Sydney.

OUR correspondent in Sydney, N.S.W., writes:

Sir Philip Sydney Jones, the oldest and most popular medical practitioner in Sydney, died on September 18th in his 83rd year. He was born in Sydney in 1836, and received his early education in this city. He proceeded to England and completed his medical education at University College, London. In 1860 he graduated M.D.Lond., and in 1861 became a Fellow of the Royal College of Surgeons of England. He also spent some time in study in Paris. He returned to Sydney in 1861, and commenced practice. He was elected honorary surgeon to the Sydney Infirmary, as the present Sydney Hospital was then called, and held this office for twelve years. In 1876 he retired from general practice and confined himself to consultation work. In 1882 he was appointed a member of the Royal Commission to investigate and report upon the rearrangement of the quarantine station. He was President of the Australian Medical Congress which met in Sydney in 1892. It was, however, chiefly in connexion with the open air treatment of pulmonary consumption that Sir Philip was best known. He was the initiator and was mainly instrumental in the establishment of the Queen Victoria Homes for Consumption at Wentworth Falls and Thirlmere. He was the President of the Board of Directors of these Homes, and only resigned this position last January owing to failing health. He was one of the founders, and the first president of the National Association for the Prevention and Cure of Consumption in New South Wales. It was in recognition of his work in combating consumption that he was knighted in 1902.

Sir Philip was also keenly interested in medical education, and was a member of the senate of the university from 1887 till his death. He was vice-chancellor for two years. He was one of the first committee formed to establish the Royal Prince Alfred Hospital, and he was a director of that institution for nineteen years. He was also interested in the work of the Kindergarten Union in this State. He was a member of the board of management of the National Museum, and was for fifty-one years a member of the Royal Society of New South Wales.

Sir Philip was a widower, and leaves three sons and four daughters, one of his sons being in the medical profession in this city. The funeral took place at Rookwood Cemetery, and was largely attended by representatives of the various bodies with which he had long been associated.

N. C. MACNAMARA, F.R.C.S.E. AND I.,

Consulting Surgeon to Westminster Hospital; formerly Treasurer of the British Medical Association.

WE regret to record that Mr. N. C. Macnamara died at his residence at Chorley Wood, Hertfordshire, on November 21st, at the age of 86. He was the son of Mr. Daniel Macnamara, surgeon, and entered the medical profession by taking the diploma of M.R.C.S. in 1854. He became assistant surgeon in the Indian Medical Service in the same year, surgeon in 1866, and surgeon-major in 1873. He was for many years civil surgeon of Mirzapur, and afterwards professor of ophthalmic surgery in Calcutta. While holding that post he founded and organized the Mayo Hospital, a large general hospital for Indians in Calcutta, of which he was the first surgeon-superintendent; the appointment has ever since been held as an additional charge by the ophthalmic surgeon. He served in the Sonthal rebellion of 1855–56, and during the Mutiny was medical officer of the Tirhut Volunteers, but did not see active service in the Mutiny. He retired in 1876. While in India he published in 1866 a volume of lectures on diseases of the eye, of which a fifth edition appeared in 1891, and in 1873 lectures on diseases of the bone, of which a third edition was published in 1887. He also wrote a history of Asiatic cholera, and from 1871 to 1873 was editor of the *Indian Medical Gazette*. Later, while resident in London, he wrote the articles on cholera and tetanus in the first edition of Quain's *Dictionary of Medicine* (1882), and those of cholera and leprosy in Davidson's *Hygiene and Diseases of Warm Climates* (1893).

Macnamara became F.R.C.S.Eng. in 1875 and F.R.C.S.I. in 1887. He was appointed surgeon and lecturer on clinical surgery to the Westminster Hospital in 1875, and also surgeon to the Royal Westminster Ophthalmic Hospital; when he retired from active work in 1897 he was appointed consulting surgeon to these institutions. He was a member of the council of the Royal College of Surgeons from 1885 to 1901, and vice-president in 1893 and 1896. He delivered the Bradshaw lecture in 1895 on osteitis, and the Hunterian Oration in 1901. The subject he chose for the oration—the human skull in relation to brain growth—is an indication of the nature of the studies to which Macnamara devoted much of his leisure, both before and after his retirement. He contributed two volumes on the evolution of purposive living matter to the *International Scientific Series* in 1910, wrote books on the origin and character of the British people, and on human speech, and in 1900 published *The Story of an Indian Sept*. His last book, published about three years ago, was entitled *Instinct and Intelligence;* in it he showed how side by side with increasing complexity of structure there appeared a corresponding power of self-adaptation.

Mr. Macnamara was an active member of the British Medical Association. He was vice-president of the Section of Surgery at the annual meetings of 1881 and 1895, and president of the Section of Ophthalmology in 1891. He was treasurer of the Association from 1885 to 1887; he was also a member of the Council for several years, and in 1891 chairman of the Committee on the Eyesight of Railway Servants, which presented a valuable report. When president of the Metropolitan Counties Branch of the Association he directed attention to the unsatisfactory position of medical teaching in London, and he was chairman of the Committee of the British Medical Association on Medical Education and a Teaching University for London which reported in 1891. As a member of the old Parliamentary Bills Committee he took an active interest in the movement for obtaining army rank for medical officers and the formation of a Royal Corps, and was a member of the Departmental Committee of the War Office on the Army and Naval Medical Services which sat in 1889.

Enough has been said to show that Mr. Macnamara was a man of great energy, industry, and enthusiasm, but a further instance is afforded by the following account by Mr. J. Y. W. MacAlister of his part in securing for the Royal Medical and Chirurgical Society the house in Hanover Square, which it occupied for some years. Mr. MacAlister writes:

> When I was appointed in 1887, and began to look into the affairs of the society, I saw that it was indeed in a parlous state. Its old lease at 53, Berners Street, had only fourteen years to run. For that house it was only paying £14 per annum. The annual accounts just barely balanced, and yet no provision had been made for what was to happen at the end of the fourteen years. I ascertained that when the lease expired the rent would be raised to certainly not less than £400, and probably £500 per annum, and that a large sum would be required for reparations. I had difficulty in getting those in authority to realize the seriousness of the position, and came to the conclusion that the best way out of the difficulty was to secure such a house as would provide accommodation for the society's own needs, and such extra accommodation as would enable it to live by taking in lodgers, or, in other words, by providing accommodation for other societies. At last I found 20, Hanover Square, which seemed to me just what was wanted. But, unfortunately, it had been acquired by speculators who had already let out contracts for rebuilding for their own purposes, and although at first they would not listen to me, ultimately they agreed to let me have the house for £23,000, which left them a fair profit on their expenditure, but they insisted that I must give

them an answer within a week, as the contractor was then engaged in his preliminary operations. A couple of days convinced me that it was hopeless to get the authorities to decide so promptly, and one morning when I was gloomily considering what should be done, Macnamara came into my room. I told him the whole story; he went round with me to No. 20, agreed that it was "just the thing," and there and then gave me a letter to his bank making himself responsible for the £23,000 if the council of the society did not take the opportunity. The next day the contract was signed, and as soon as possible thereafter, but not without a good deal of opposition and difficulty, the council of the society agreed to purchase the house on the understanding that I could raise the necessary money for purchase and alterations on debentures. I told the story at the inaugural dinner which was given in the new house under the chairmanship of Sir Edward Sieveking, but Macnamara reproved me for doing so! Nevertheless, whenever I had an opportunity I told the Fellows how much the society owed to his confidence and generosity, and I should be glad to have it recorded in your pages.

Medical News.

THE Swiney lectures on geology, in connexion with the British Museum (Natural History) will be given during December and January by Mr. Thomas J. Jehu, M.D., F.R.S.E. The subject of the course, which consists of twelve lectures, is man and his ancestry. The introductory lecture will be delivered on Tuesday, December 10th. The course will be given at the Royal Society of Arts, John Street, Adelphi, at 5.30 p.m. on each day.

OF the compliments which Great Britain has endeavoured to pay to the imperishable genius of France, perhaps the most graceful is that of the University of Glasgow. It elected the President of the French Republic to be its Lord Rector in 1914; last year it extended the term of office for a fourth year, and now it has again extended it. It is rewarded by the promise of President Poincaré to visit Glasgow within a few months.

THE new President of the Local Government Board has issued a strongly-worded circular to local authorities, asking them to let him know without delay what they are doing with regard to housing. Sir Auckland Geddes declares it to be essential that local authorities should take immediate steps to submit all housing schemes to the Board. One of the questions he asks is whether any work, such as the development of housing sites and the construction of roads, sewers, etc., can be put in hand immediately demobilization begins without waiting for the final approval of the plans of the houses.

IN view of the continued prevalence of influenza the Local Government Board has issued regulations for preventing the spread of the disease. They have special reference to music-hall performances of a continuous character, and provide that the entertainments shall not be carried on for more than three consecutive hours; that there shall be an interval of at least thirty minutes between two successive performances; and that during the interval the building shall be effectually and thoroughly ventilated. With regard to cinemas, where notice has been given to the proprietor of a cinematographic exhibition that a public elementary school has been closed on account of the prevalence of influenza, children may not be admitted during the continuance of the closure of the school. By the latest order the period during which the entertainment may be carried on has been increased to four hours in the case of cinemas.

AT the meeting of the Zoological Society of London on November 6th Dr. R. T. Leiper gave a demonstration on the "new" rabbit disease. The chief cause of mortality was found to be a coccidial invasion of the intestinal wall or of the lining of the bile ducts. In many cases changes in the liver attributed to coccidiosis were the result of infection with *Cysticercus pisiformis*, the larval stage of the dog tapeworm *Taenia serrata*. Large swellings in the region of the head and neck, suspected to be cancerous, were due to *Coenurus serialis*, the larva of the dog tapeworm *Taenia coenurus*. The coccidial infections passed from infected to healthy animals through the faeces. When freshly passed the coccidial oocysts were not infective. They only became so after a period of delay in which certain developmental changes took place. These changes proceeded more rapidly in dry than in wet faeces. Prevention depended upon the systematic periodical removal and destruction by burning of all pellets and contaminated bedding, and the use of some fluid to destroy such oocysts as remained in the hutch. There would appear to be no risk of infection to man.

Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C.2, on receipt of proof.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL.

The postal address of the BRITISH MEDICAL ASSOCIATION and BRITISH MEDICAL JOURNAL is 429, Strand, London, W.C.2. The telegraphic addresses are:

1. EDITOR of the BRITISH MEDICAL JOURNAL, *Aitiology, Westrand, London*; telephone, 2631, Gerrard.
2. FINANCIAL SECRETARY AND BUSINESS MANAGER (Advertisements, etc.), *Articulate, Westrand, London*; telephone, 2630, Gerrard.
3. MEDICAL SECRETARY, *Mediscra, Westrand, London*; telephone, 2634, Gerrard. The address of the Irish Office of the British Medical Association is 16, South Frederick Street, Dublin.

The address of the Central Medical War Committee for England and Wales is 429, Strand, London, W.C.2; that of the Reference Committee of the Royal Colleges in London is the Examination Hall, 8, Queen Square, Bloomsbury, W.C.1; and that of the Scottish Medical Service Emergency Committee is Royal College of Physicians, Edinburgh.

LETTERS, NOTES, ETC.

GOUT AS A PREVENTIVE OF INFLUENZA.

DR. W. JOHNSON SMYTH (Bournemouth) writes: The faulty chemical state of the blood in gout is rarely associated with tuberculosis. The present influenza pandemic has proved most aggressive in persons below the gouty age. The lowered consumption of nitrogenous foods all the world over has lessened, we may assume, the usual amount of uric acid and other azotized blood contents.

I suggest that these nitrogen-containing bodies may form a rampart against influenza infection. Though our military and naval forces may receive a normal supply of nitrogenous diet, yet we must bear in mind the exceptional activity and exposure of these forces, entailing a high degree of oxidation resulting in a less than usual approach to the lithaemic state. The influenza epidemic of 1890 was relatively localized and mild, so that some new factors must be found if we are adequately to explain the severity and widespread prevalence of the present infection.

HAEMORRHAGIC SPIROCHAETAL BRONCHITIS.

DR. H. G. WATERS, Chief Medical Officer, East Indian Railway Company (Allahabad, India), writes, with reference to the note published on June 29th of Violle's report of an outbreak of spirochaetal bronchitis at Toulon: This is the first confirmation of epidemic spirochaetal bronchitis I have seen. Castellani reported a case of bronchitis with spirochaetes a year before I discovered the epidemic at Tundla (1907) but no one else, so far as I have seen recorded, has come across the acute epidemic form. Isolated cases have occurred on the East Indian Railway at Delhi, Tundla, Allahabad, and Jamalpur, and White Robertson reported another two at Gya; all these cases were acute, with one or two relapses. I have not seen the chronic form recorded by Castellani as occurring in Ceylon.

*** Violle states that in the cases he described the evolution of the disease occurred on the average in one month. He does not state whether the spirochaetes persisted in cases which relapsed.

DIRECT SALE OF MILITARY MOTOR CARS.

CAPTAIN E. WILSON HALL, R.A.M.C., writes: May I suggest that facilities be made, after peace is declared, for general practitioners who have been serving in the navy or the army, to obtain motor cars from the navy, army, or British Red Cross Society direct, rather than through a third party? In this way a large number of really serviceable cars would be obtained by the profession, and the benefit derived by the direct transaction very great, both to the individual and the general public, as otherwise the price asked by the agents will, I am sure, place the car out of reach financially of many of us.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Seven lines and under	0	6	0
Each additional line	0	0	9
Whole single column	4	0	0
Whole page	12	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.